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Directions Paper on the Integration of NRM into Land Use Planning



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Acronyms

DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEWHA	Department of Environment, Water, Heritage and the Arts
DoP	Department of Planning
DoW	Department of Water
DPI	Department for Planning and Infrastructure
EPA	Environmental Protection Authority
MST	Model Scheme Text
NRM	Natural Resource Management
SEWPAC	Department of Sustainability, Environment, Water, Population and Communities
WALGA	Western Australian Local Government Association
WAPC	Western Australian Planning Commission

Executive Summary

The Western Australian Government's goal for natural resource management (NRM) is the conservation and sustainable management of the state's natural resources, through efficient and effective partnerships between all levels of government, industry and the community. The land use planning system is integral to achieving NRM outcomes in Western Australia. Land use planning can protect natural resources from incompatible land uses, locate development away from sensitive environments, and require sustainable management of natural resources through change in land use. Natural resources that benefit most from consideration through land use planning include native vegetation, wetlands, waterways, water supply areas, agricultural land and basic raw materials.

The Department of Planning (DoP) is a key state government authority involved in the Western Australia NRM program. The Minister for Planning is represented on the NRM Ministerial Council, and DoP is represented on the Council of Natural Resource Agencies Chief Executives and the NRM Senior Officer's Group. The Western Australian Planning Commission (WAPC), through its commitment to NRM, has obtained approximately \$3.3 million in Commonwealth and State NRM funding over the past four years, to assist delivery of NRM projects relevant to land use planning.

EnviroPlanning

EnviroPlanning is one of the WAPC's most significant NRM projects, with the aim of improving the integration of NRM into land use planning across the State. EnviroPlanning was initiated in late 2005 through a partnership between the WAPC, the former Department for Planning and Infrastructure, and the Western Australia Local Government Association (WALGA). The EnviroPlanning project involved the following key components:

- **Local Government Partnership Program:** EnviroPlanning provided approximately \$500,000 of funding to nine projects to assist best practice integration of NRM into land use planning, and this leveraged approximately \$680,000 of financial contributions from project partners.
- **Land Use Planning Awareness Program:** EnviroPlanning held 10 regional forums in Albany, Geraldton, Northam, Bunbury and Perth, with 109 people attending in 2008 and 140 attending in 2009.
- **NRM Land Use Planning Program:** EnviroPlanning provided technical advice to DoP/WAPC for State and regional planning policies and strategies, to 21 local governments for local planning strategies, and to 16 local governments for local biodiversity strategies.
- **Directions Paper on Integrating NRM into Land Use Planning:** EnviroPlanning prepared a draft directions paper which was endorsed by the WAPC in December 2008 and released for public comment in March 2009. The directions paper provided guidance and recommendations to improve the integration of NRM into land use planning.
- **Land Use Planning in the State NRM Program:** EnviroPlanning provided advice to the State NRM Council, based on the draft directions paper, which resulted in land use planning being recognised as a priority investment area for the State NRM Program.

Directions paper on the integration of NRM into land use planning

In March 2009, the WAPC released the *Directions Paper on the Integration of NRM and Land Use Planning* as a draft for public comment. The draft directions paper was the synthesis of work undertaken through EnviroPlanning during 2007 and 2008, including the outcomes of workshops, studies, reviews, audits, and grant funded projects that demonstrated best practice integration of NRM into land use planning. The finalisation of the directions paper has involved consideration of feedback received during the public comment period, as well as further consultation with DoP and relevant NRM agencies.

This directions paper has been prepared by DoP's EnviroPlanning project team, with the explicit purpose of providing advice and recommendations to the WAPC for improving the integration of NRM into land use planning. The directions paper also serves to improve the understanding of Commonwealth, State and local government authorities and community NRM groups, of the opportunities and limitations of the Western Australian land use planning system in achieving NRM outcomes.

Part one of the directions paper provides an overview of the Western Australian land use planning system, explains the functions of different agencies involved in NRM and land use planning, and explores opportunities for integrating NRM into strategic and statutory planning at the state, regional and local levels. Part one also examines issues for peri-urban areas, where the transition between urban and rural land uses presents serious challenges for NRM and land use planning. Part two of the directions paper presents a case study on biodiversity conservation, providing detailed guidance on the consideration of this particular NRM issue through land use planning.

Limitations and opportunities for integrating NRM into land use planning

EnviroPlanning has identified several limitations and opportunities of the Western Australian land use planning system in achieving NRM outcomes.

Key limitations of the land use planning system that must be taken into consideration if NRM outcomes are to be achieved include:

- NRM is just one of many elements that land use planning must consider when seeking sustainable development outcomes;
- the primary focus of the planning system is to coordinate land use and development;
- land use planning involves a complex and tiered approval process;
- long time frames are involved with amending the planning framework; and
- there is a reliance on the change of land use to trigger new requirements.

Key opportunities for improving the integration of NRM into land use planning include:

- clarification of the roles and responsibilities of the WAPC and the Environmental Protection Authority (EPA) in the consideration of NRM in land use planning and decision-making;
- incorporation of NRM considerations as early as possible in the land use planning process;
- consideration of the natural extent and possible cumulative impacts of individual planning proposals on natural resources, through strategic planning at the regional scale;
- integration of NRM into local planning strategies and schemes to achieve NRM outcomes at the local level;

- improvements to the *State Planning Framework* to address contemporary NRM issues, and provision of guidance for implementation of NRM policies; and
- whole-of-government involvement in strategic planning and improved efficiency of statutory referral processes.

Summary of key directions for improving NRM through land use planning

1. Agreement between WAPC and EPA on roles and responsibilities for NRM

The EPA's role in land use planning is clearly established through the interface between the *Environmental Protection Act 1986* and the *Planning and Development Act 2005*, which involves a formal referral and environmental impact assessment process for development proposals, planning schemes and amendments.

The EPA has an expectation that planning decision makers will ensure environmentally sound outcomes at each stage of the planning process through the implementation of requirements set out in planning strategies, schemes and policies. This position is set out in EPA Guidance Statement No. 33 and reduces the need to formally assess applications with environmental implications that can be addressed through the planning process.

Some of the issues identified by EnviroPlanning with regards to the relationship between environmental impact assessment and land use planning functions include:

- A common misconception amongst planners that, if a proposal or scheme is not formally assessed by the EPA, environmental issues are considered to be adequately addressed.
- A perception that the consideration of environmental matters in land use planning is solely or primarily

the responsibility of the EPA or the Department of Environment and Conservation (DEC).

- A lack of clear policy implementation guidance for how NRM issues should be addressed through the planning system; and
- A lack of agreement over the roles and responsibilities of each agency in addressing environmental issues in planning.

It is clear from the *Planning and Development Act 2005* that some consideration of environmental matters is required through the planning system. Few proposals are formally assessed by the EPA, which is partly due to the expectation that the planning system, through the application of state planning policies, local planning strategies and schemes, will address certain environmental matters. An agreement in the form of a memorandum of understanding between the EPA and the WAPC on the expectations of each agency in addressing NRM matters would assist in ensuring that proposals not formally assessed by the EPA will be given appropriate consideration through land use planning processes.

2. Consideration of NRM early in the land use planning process

Opportunities exist for integrating NRM at different levels in the land use planning hierarchy, through strategic and statutory planning processes at the state, regional and local levels. NRM considerations should be incorporated into the planning process as early as possible, and reflected in later stages of planning. It can be difficult to achieve NRM outcomes through the subdivision and development of land, unless they have been adequately addressed through earlier strategic (eg regional and local planning strategies) and statutory (eg regional and local planning schemes and amendments) planning. It is particularly important to note that land zoned for urban development is highly constrained in terms of opportunities to achieve NRM outcomes

such as protection of environmental assets. As the opportunities to achieve NRM outcomes in an urbanised environment are highly constrained and the change from rural to urban use is usually irreversible, land use planning in peri-urban areas provides an important opportunity for achieving NRM outcomes.

3. Integration of NRM into strategic regional planning

Planning and management of natural assets is often best undertaken at a scale that reflects their natural extent, for example, rivers are best planned for at the catchment scale. Regional planning provides the most appropriate scale for considering the natural extent and significance of environmental assets across a number of local governments, and provides direction for recognising and protecting those assets through land use planning. Planning at the regional scale also enables the consideration of the cumulative impacts of future development on the environmental assets in a region, and the sharing of responsibility for protection and management across a wider number of stakeholders.

Commitment and support of state NRM agencies to the preparation and implementation of regional planning strategies is vital to ensuring NRM is adequately addressed for matters such as managing urban growth, facilitating appropriate development, and identifying significant natural assets. Continued partnerships between the Commonwealth, state NRM agencies, DoP and local governments to identify priority natural resources and recommendations for protection and management of natural assets, will assist the integration of NRM into regional planning.

4. Integration of NRM into local planning strategies and schemes

Under the *Planning and Development Act 2005*, local government has an important role in integrating NRM and land use planning as they are responsible for the preparation and

administration of local planning strategies and schemes.

The local planning strategy is a strategic document that sets out the long-term planning directions for a local government area and provides the justification and rationale for the proposed zones and provisions in the local planning scheme. Therefore, the integration of NRM considerations into the local planning strategy is vital to ensuring the ongoing consideration of NRM in future decision-making. As long as the local planning strategy clearly defines expectations for NRM in relation to proposed land use and development, NRM considerations can be translated into statutory provisions through the local planning scheme and be used to guide decisions on rezoning, subdivision and development within a sustainability framework. Currently, only 36 local planning strategies have been endorsed and released by the WAPC, with the format and content of these strategies varying considerably, along with the extent to which NRM is considered. Factors most affecting the quality of local planning strategies, and the extent to which they can address NRM, include the level of guidance and coordinated support provided by state agencies to local governments. The draft guidance on the integration of NRM into local planning strategies that has been prepared by EnviroPlanning, along with greater coordination of state agency support for local planning strategies, should improve the capacity of local planning strategies to address NRM matters.

The local planning scheme is the statutory implementation arm of a local planning strategy, and is used by local government to control and manage land use and development in its locality. Local planning schemes guide local government decision-making in relation to applications for development approval, and guide the WAPC's decision-making in relation to applications for subdivision of land. Mechanisms in a local planning scheme that may assist achievement of NRM outcomes include reservation, zoning, special control areas, general provisions that

relate to all zones, and special provisions that relate to particular development areas.

Model scheme text provisions (which are standard legal and administrative provisions that must be included in local planning schemes) may not be appropriate for all NRM matters, due to regional and local differences in natural resources that require specific management approaches. A more appropriate approach to guiding local governments in addressing NRM through local planning schemes would be to develop an NRM land use planning tool box that provides best practice examples.

The potential role of local government in achieving NRM outcomes through local level planning is often constrained by low capacity in terms of resources and expertise. The majority of local governments outside of the Perth metropolitan region and other regional centres often rely on consultants to support their land use planning functions, particularly the more complex and time consuming activities such as preparing or amending local planning strategies and schemes. There are a number of options to support local government's capacity to achieve NRM outcomes through land use planning, including the delivery of partnership projects, more efficient use of local government resources, and provision of funding support and assistance from state agencies.

5. Improved guidance for NRM in the State Planning Framework

The *State Planning Framework* unites the state planning strategy, state planning policies, regional strategies, regional and sub-regional structure plans, strategic policies and operational policies in a central framework, to provide the context for land use planning decision-making in Western Australia. The framework contains policy guidance for a range of NRM issues, including land degradation, land use conflicts, management of water resources, biodiversity conservation, coastal management, climate change, air quality and energy conservation. The effectiveness of the

policy guidance provided for different NRM matters is variable, and in most cases requires refinement or further guidance to support its interpretation and application at different stages of the planning process. There are a number of shortfalls that exist in the current framework that should be addressed to further support integration of NRM and land use planning. These include the metro-centric nature of existing policies, conflicts between different policies, limited guidance on implementation at different stages of the planning process, and the currency and complexity of policies within the framework.

6. Whole-of-government involvement in NRM land use planning

Western Australia's centralised land use planning system, separate environmental and planning legislation, and non-statutory arrangements for regional NRM groups, present challenges for integrating NRM into land use planning that are not necessarily experienced in other states of Australia. The involvement of state agencies and NRM groups in land use planning is often limited due to resource constraints, therefore it is essential that effective coordination of planning and environmental agencies occurs to ensure that NRM considerations are integrated at all stages in the planning system. This requires the clarification of roles and responsibilities of the different agencies involved in NRM and land use planning, the development of partnerships between agencies, and improved communication and networking between agencies.

Recommendations for improving the integration of NRM into land use planning

The directions paper presents recommendations for improving the integration of NRM into land use planning, which relate to three key themes:

- clear policy direction for integrating NRM into land use planning;
- whole-of-government involvement in NRM and land use planning; and
- local government support for integration of NRM into land use planning.

Recommendations and actions to improve the integration of NRM into land use planning are summarised in table 1.

Funding for implementation of the directions paper recommendations is limited through the Commonwealth Government's Caring for our Country program, which predominantly focuses on discrete national icons and on-ground activities. Furthermore, the State Government's recent focus on reducing operational expenditure will affect the capacity of DoP to resource the implementation of directions paper recommendations. Future funding therefore appears to be dependent on the State NRM Program, which recognises the integration of NRM into land use planning as a priority for investment.

The WAPC has received funding through the 2009/10 State NRM program to commence the implementation of recommendations identified in the directions paper, including:

- Establish agreement between the WAPC and the EPA on the roles and responsibilities for NRM matters through land use planning and decision-making;
- Assist the integration of NRM into regional and sub-regional planning strategies and structure plans, through the identification of priority natural resources and recommendations for protection and management;

- Prepare case studies and practice notes to support local government integration of NRM into local planning strategies, local planning schemes, local planning policies and local structure plans;
- Continue to seek funding from the State NRM program and Commonwealth Government's Caring for our Country program, and administer funding to support local government projects that address the integration of NRM into land use planning;
- Provide technical planning support to local governments for the integration of NRM into land use planning; and
- Provide support to WALGA and local governments for the integration of local biodiversity strategies into local planning strategies, schemes and structure plans.

Table 1: Recommendations and actions to improve the integration of NRM into land use planning

NRM land use planning theme	Recommendations and actions	Report reference
Clear policy direction for integrating NRM into land use planning	<ol style="list-style-type: none"> 1. Consider comments and recommendations of EnviroPlanning's review of the State Planning Framework when undertaking review and update of the state planning strategy, state planning policies and development control policies. 2. In conjunction with DEC and the Office of the EPA, investigate the need for additional policy guidance on the protection of native vegetation through land use planning. 3. Support statutory planning processes to address NRM: <ol style="list-style-type: none"> a. Develop model scheme text provisions to address NRM issues where consistent across the state. b. Review and update standard subdivision conditions relevant to NRM to ensure wording reflects intent. 	<p>4.2.3</p> <p>7.4.6</p>
Whole-of-government involvement in NRM and land use planning	<ol style="list-style-type: none"> 4. Establish agreement between the WAPC and the EPA on the roles and responsibilities for NRM matters through land use planning and decision-making. <ol style="list-style-type: none"> a. Prepare a memorandum of understanding. b. Establish priorities for strategic environmental planning (eg EPA section 16 advice). c. Develop and support delivery of projects which seek to address information and policy gaps, identified through the annual review of priorities for integrated environmental planning, in consultation with EPA/WAPC, NRM agencies and local government. d. Develop environmental conditions and advice for planning proposals, schemes and amendments. 5. Integrate environmental planning expertise into the Perth, Peel and South-West planning directorates of DoP. 6. Continue DoP involvement in the State NRM program, including representation on the Council of Natural Resource Agency Chief Executives and the NRM Senior Officer's Group. 	<p>3.3.2</p> <p>3.1.2</p> <p>3.1.2</p>
	<ol style="list-style-type: none"> 7. Improve State agency engagement in land use planning: <ol style="list-style-type: none"> a. Prepare an agreement with relevant state agencies that defines the roles and responsibilities of state NRM agencies at different stages of the planning process (eg strategies, schemes, amendments, subdivisions). b. Prepare and maintain a list of key agency contacts to correspond with the relevant roles and responsibilities for NRM through land use planning. c. Encourage DEC and the Office of the EPA to promote and allocate resources for implementation of EPA Guidance Statement No. 33. d. Identify NRM data requirements to support development of local planning strategies. e. Assist the integration of NRM into regional and sub-regional planning strategies and structure plans, through the identification of priority natural resources and recommendations for protection and management. f. Facilitate consultation between state NRM agencies and local governments in the absence of a contemporary regional strategy that identifies priority NRM issues and areas, in order to provide regional guidance for local level planning. g. Clarify the roles of DEC and the EPA in supporting local biodiversity conservation, including formal consideration and possible endorsement of local biodiversity strategies. 	<p>3.10.4</p> <p>3.10.4</p> <p>3.10.4</p> <p>4.4.3</p> <p>4.3.4</p> <p>4.3.4</p> <p>7.5.2</p>

NRM land use planning theme	Recommendations and actions	Report reference
Local government support for integration of NRM into land use planning	<p>8. Raise the awareness of state NRM agencies, the Department of Sustainability, Environment, Water, Population and Communities (SEWPAC), local governments, regional NRM groups and DoP staff, of the integration of NRM into land use planning.</p> <p>9. Provide support to local governments to improve the integration of NRM into land use planning:</p> <ul style="list-style-type: none"> a. Prepare case studies and practice notes to support local government integration of NRM into local planning strategies, local planning schemes, local planning policies and local structure plans. b. Explore opportunities for regional cooperation across local governments to share planning resources. c. Continue to seek funding through the State NRM program and the Commonwealth Government's Caring for our Country program, and administer funding to support local government projects that address the integration of NRM into land use planning. d. Provide technical planning support to local governments for the integration of NRM into land use planning. e. Provide support to WALGA and local governments for the integration of local biodiversity strategies into local planning strategies, schemes and structure plans. 	<p>3.10.4</p> <p>4.4.3, 4.5.2, 4.6.3</p> <p>3.2.2</p> <p>3.2.2</p> <p>3.2.2</p> <p>7.5.2</p>

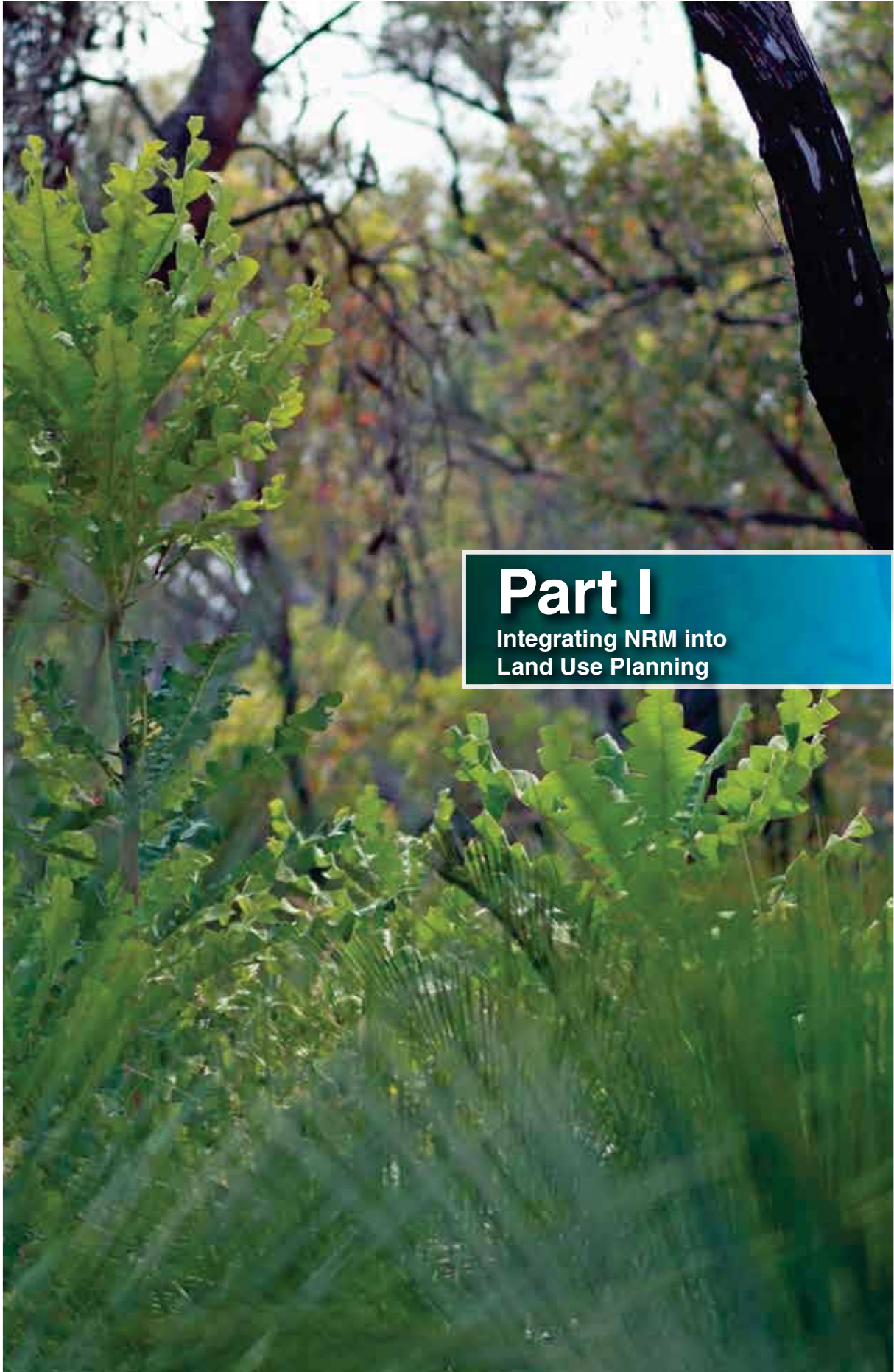
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Part I

Integrating NRM into Land Use Planning

1 Introduction

The Western Australian Government's goal for NRM is the conservation and sustainable management of the state's natural resources, through efficient and effective partnerships between all levels of government, industry and the community. The land use planning system is integral to achieving NRM outcomes in Western Australia.

Land use planning can protect natural resources from incompatible land uses, locate development away from sensitive environments, and require sustainable management of natural resources through change in land use. Natural resources that benefit most from consideration through land use planning include native vegetation, wetlands, waterways, water supply areas, agricultural land and basic raw materials.

One of the difficulties in successfully integrating land use planning and NRM relates to the complexity of the Western Australian land use planning system. This complexity is due to a variety of factors, including:

- a number of legislative and policy requirements that govern planning;
- interaction of Commonwealth, State and local governments through specialist advice;
- information requirements for receiving environment;
- landscape and local scale decision requirements;
- stakeholder consultation, community aspirations and local and State politics; and
- the inevitable time lags in facilitating change in the system such as amendments to town planning schemes (a process that can take in excess of 12 months).

In the context of NRM, the complexity of the land use planning system is exacerbated by the need for decisions which account for interrelated natural systems at local and landscape scales. As a result, the integration of natural resource matters into the planning system has not always been effective.

1.1 The EnviroPlanning project

The EnviroPlanning project was initiated in 2005 by officers of the former Department for Planning and Infrastructure (DPI) and WALGA, with the support of the WAPC. The drivers which led to the development of the EnviroPlanning project included:

- recognition by WALGA, NRM regional groups and the Australian Government that the integration of NRM into land use planning was a significant gap not previously acknowledged through NRM initiatives delivered through the Natural Heritage Trust program;
- limited resources in DPI to support implementation of the State Planning Framework to assist achievement of NRM outcomes; and
- requirement for partnerships to foster cooperation and commitment of local and State Government to integrate NRM considerations into their land use planning decision-making, as the NRM regional groups have no statutory land use planning powers.

Support for the development and delivery of the EnviroPlanning project was gained from the six NRM regions, and funding obtained through the strategic reserve component of the Natural Heritage Trust. The project was developed as a partnership between the DPI, WALGA and the WAPC and was delivered by staff employed by DPI, with the primary aim of improving the

integration of NRM into land use planning through the achievement of the following project objectives:

1. Ensure NRM considerations are incorporated into land use planning decision-making processes.
2. Provide advice to state government departments, local governments, regional NRM groups and the community for the effective integration of NRM considerations into land use planning processes.
3. Actively seek implementation of land use planning related recommendations of NRM strategies.

The EnviroPlanning project consisted of three core components as depicted in figure 1.

Local government partnership program

The local government partnership program was established to address the recognised lack of resources in local government to implement NRM related policies and requirements through their local planning framework. In addition, the program was aimed at providing case study examples of how the improved integration of NRM principles, targets and actions into the land use planning system could be achieved. During the operation of the local government partnership program, EnviroPlanning provided technical assistance and funding of approximately \$500 000 in total to nine projects, which drew financial and in-kind contributions from project partners approximating \$890 000. Summaries of the projects funded can be found in appendix 1.

Awareness raising

The main purpose of the awareness raising component of the project was, as the name suggests, to raise awareness of the opportunities available to improve the integration of NRM into land use planning. The program had two key objectives:

- to improve the understanding of NRM professionals of the land use planning system and how it can be used to achieve NRM outcomes; and
- to improve the awareness of land use planners of NRM and of the opportunities to improve the integration of NRM into land use planning.

Forums on integrating NRM and land use planning were held in 2008 and 2009 in Geraldton, Northam, Albany, Bunbury and Perth by EnviroPlanning and were attended by a range of NRM and planning professionals. The forums provided a useful opportunity for both the NRM and planning professionals to network, exchange ideas, and hear from the various agencies opportunities for improving the integration of NRM into land use planning. The networking and information sharing were found to be highlights of the forums by participants. A copy of the forum summary report for the 2008 series of forums has been included in appendix 2.

In addition to the forums, a workshop was held to highlight NRM and land use planning issues in peri-urban areas, presentations were made to relevant planner forums, articles placed in newsletters of regional NRM groups and WALGA, and an EnviroPlanning web page was established to promote the progress of the project. Further information is available from: <<http://www.planning.wa.gov.au/Plans+and+policies/Statewide+planning/EnviroPlanning/default.aspx>>.

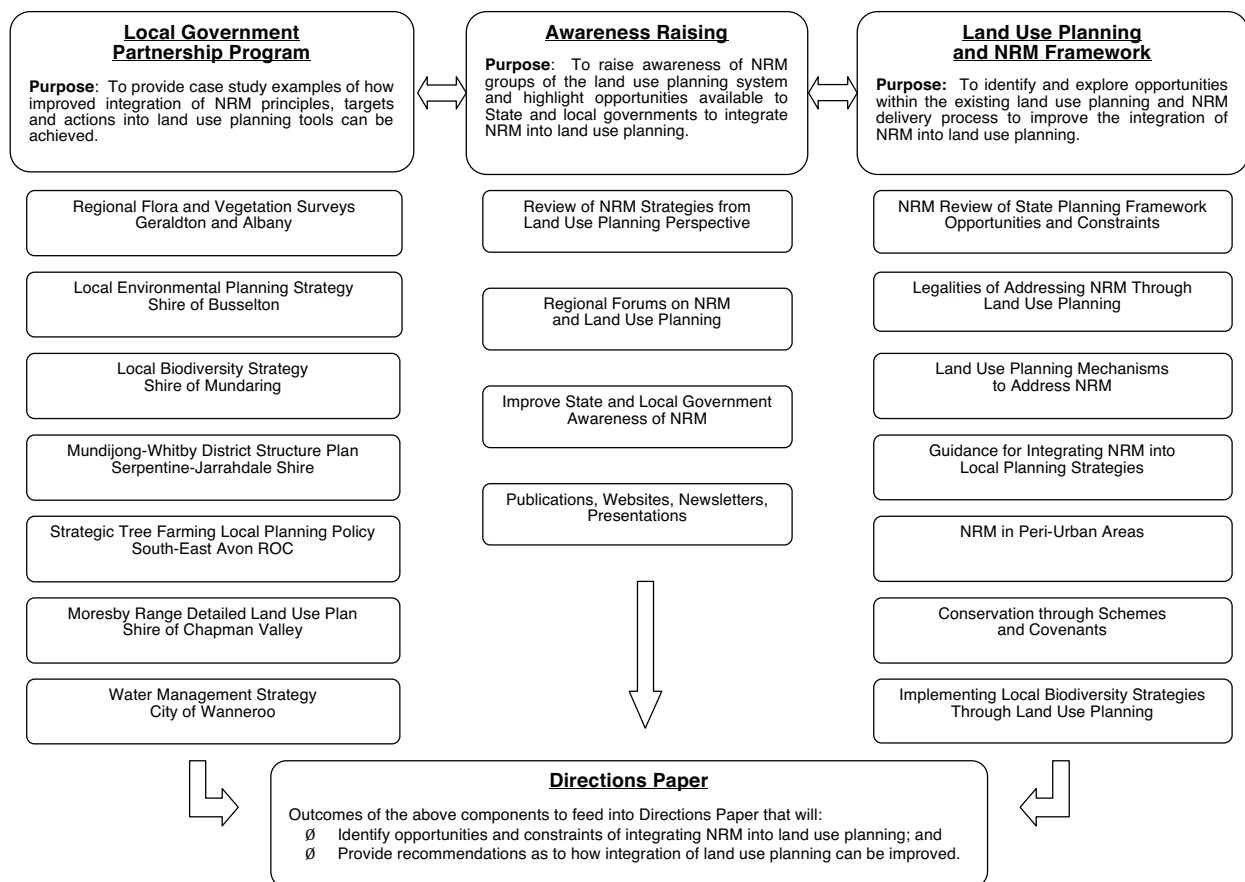
State land use planning and NRM framework

The third major component of the EnviroPlanning project was the review of the State Planning Framework to examine how the integration of NRM into land use planning could be improved. A number of investigations were undertaken, such as a review of the NRM regional strategies from a land use planning perspective, review of the State Planning Framework to determine the level by which it currently guides the integration of NRM, preparation of guidance on integrating NRM into local planning strategies, exploration of the roles and responsibilities of the key state agencies in the land use planning system, and a review of EPA guidance statements. Outcomes of these investigations have been incorporated into this directions paper.

1.2 Directions paper

This directions paper is the synthesis of the work undertaken by EnviroPlanning since 2006 and combines the outcomes of workshops, studies, reviews, audits and grant funded programs to demonstrate best practice integration of NRM into land use planning in Western Australia.

The directions paper has been prepared with the explicit purpose of providing advice and recommendations to WAPC for improving the integration of NRM into land use planning. The actions required to implement the recommendations will require involvement from various Commonwealth and state government departments, WALGA, local governments and the regional NRM groups. The directions paper also serves to improve the understanding of Commonwealth, State and local government authorities and community NRM groups, of the opportunities and limitations of the Western



Australian land use planning system to achieve NRM outcomes.

In March 2009, the WAPC released the draft Directions Paper on the Integration of NRM and Land Use Planning. The finalisation of the directions paper has involved consideration of feedback received during the public comment period, as well as further consultation with DoP and with relevant NRM agencies.

The directions paper consists of two parts. Part one provides an overview of the opportunities and constraints of the current Western Australian planning system, and provides guidance on integrating NRM through each stage of the planning process. Chapters in part one include:

Chapter 1 – Introduction: provides an overview of the EnviroPlanning project and purpose and content of the directions paper.

Chapter 2 – NRM and land use planning context: defines NRM, provides a broad overview of NRM and land use planning processes in Western Australia, establishes the relevance of land use planning in achieving NRM outcomes, confirms NRM as a valid planning consideration, and outlines the limitations of achieving NRM outcomes through land use planning.

Chapter 3 – Key agencies in NRM and land use planning: provides an overview of the relevant roles of each agency in assisting the integration of NRM into land use planning.

Chapter 4 – Integrating NRM into land use planning: provides an outline of the opportunities available to integrate NRM into strategic and statutory land use planning at the State, regional and local levels of planning.

Chapter 5 – NRM and land use planning in peri-urban areas: explores the opportunities and constraints of addressing NRM issues through land use planning in peri-urban areas.

Part two of the directions paper presents a case study on biodiversity conservation to provide more detailed guidance on addressing this specific NRM issue through land use planning.

2 NRM and land use planning context

In order to effectively examine the ways in which to improve the integration of NRM into land use planning, it is important to understand what NRM and land use planning are, and how the two relate. This chapter has been written to provide a basic understanding of both NRM and land use planning in Western Australia. Website links and references to key documents have been provided to enable the reader to obtain more detailed information where desired.

2.1 NRM in Western Australia

The *Draft Natural Resource Management Plan for Western Australia* defines NRM as the human use, enhancement and conservation of natural resources. Each natural resource consists of assets, which are distinct parts of the environment with values and uses supporting healthy ecosystems and/or providing services to humans. Assets range from patches of bushland, waterways, rocky shores and native animals to soils used for agriculture, drinking water catchments and remnant vegetation.

In Western Australia, there is no single agency responsible for undertaking the role of NRM. Rather this role is undertaken by a range of community, state and local government agencies. Chapter 3 provides further detail on the various agencies involved in NRM. Similarly, there is no one piece of legislation governing NRM, with the implementation of NRM drawing on a number of different acts such as the *Environmental Protection Act 1986*, *Wildlife Conservation Act 1950*, *Soil and Land Conservation Act 1945* and the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999*.

The National Action Plan for Salinity and Water Quality and Natural Heritage Trust were major national programs that were cooperatively implemented by the Australian, state and territory governments aimed at improving the management of Australia's natural resources. Both the National Action Plan and the National Heritage Trust were partnerships between all levels of community and government, working together to protect the environment and natural resources, and to sustain agricultural industries and regional communities.

As part of the delivery framework for the National Action Plan and the National Heritage Trust, 57 regions were identified across Australia for the purposes of determining NRM and sustainable agriculture priorities. Six regions were identified in Western Australia consisting of the South West, Great Southern, Swan, Northern agricultural, Avon and Rangelands regions.

Each of the regions were required to develop a regional strategy based on a whole-of-region approach to address significant NRM issues incorporating environmental, social and economic aspects. Development of the NRM regional strategies were led by the NRM regional groups. These regional strategies identify strategic, prioritised and achievable actions to address the range of NRM issues and achieve the regional targets. The strategies also form the basis of rolling investment plans that guide the delivery of funds in the region.

Further information on the NRM regions and their roles can be found at <http://www.nrm.gov.au/nrm/wa.html> and in section 3.8 of this report.

In March 2008, the Commonwealth Government announced a refocus of its NRM programs through the new Caring for our Country initiative to better target national priorities. Under the

Caring for our Country program, six national priority areas have been established:

- a national reserve system;
- biodiversity and natural icons;
- coastal environments and critical aquatic habitats;
- sustainable farm practices;
- NRM in remote and northern Australia; and
- community skills, knowledge and engagement.

A total of \$2.25 billion in funding has been allocated to the program over five years from 1 July 2008 to June 2013, with the program designed to remove restrictions imposed on national, regional and local level funding to provide the opportunity for non-government organisations, regional bodies, local government and state, territory and Australian Government agencies to access funds to help achieve the national priorities.

Under the new program, regional bodies will be provided with a base level of funding to invest in actions that complement and contribute to the national priorities. The regions will also be able to bid for funds under a competitive process.

Details of the Caring for our Country program can be found at <<http://www.nrm.gov.au/index.html>>.

At a State level, the draft Natural Resource Management Plan for Western Australia identifies six key priorities for NRM:

- recover and conserve Western Australia's biodiversity;
- maintain and enhance the condition and beneficial use of Western Australia's priority waterways;
- protect Western Australia's marine and coastal environment;
- ensure sustainable management of Western Australia's agricultural and other land resources;

- planning and management of urban and peri-urban areas to mitigate adverse social and environmental impacts of rapid population growth; and
- enhance community skills, knowledge and engagement through support, knowledge management, resource condition assessment and evaluation of outcomes.

This plan has been developed to provide direction for the management and protection of the State's natural resources and to assist in the coordination of the State's investment in NRM. The draft NRM plan can be found at <www.nrm.wa.gov.au/draftNRMPlan.htm>.

2.2 The Western Australian planning system

In simple terms, land use planning is about designing the communities in which we live, work and play. It balances the built and natural environment, community needs, cultural significance and economic sustainability in an effort to improve our way of life.

2.2.1 Legislative basis for the Western Australian planning system

The main legislative basis for the Western Australian land use planning system comes from the following Acts and regulations:

Planning and Development Act 2005

The *Planning and Development Act 2005* is the principal piece of legislation for planning in Western Australia. It sets out the procedures and requirements for such matters as the membership of the WAPC, the preparation of state planning policies, local planning schemes, subdivision, setting of conditions and appeal procedures. The WAPC's Planning Bulletin 76 provides a good overview of the Act and can be found at <www.wapc.wa.gov.au/Publications/742.aspx>.

Environmental Protection Act 1986

The *Environmental Protection Act 1986* establishes a process for the environmental impact assessment of proposals, including schemes and their amendments, and establishes a requirement for the referral and environmental impact assessment of subdivisions and development applications that may impact on the environment. The implications of this act and environmental impact assessment is further discussed in section 3.3. Currently the environmental impact assessment process is largely undertaken separate to the planning approvals process, which results in a dual approval requirement. The recently released WAPC publication *Planning Makes it Happen – a blueprint for planning reform* recognises a need to undertake a legislative review to consider the advantages and disadvantages of integrating planning and environmental legislation to develop a more collaborative approach to the assessment and approval process.

Town Planning Regulations 1967

These regulations prescribe the procedures for initiating, preparing, advertising and approving local planning schemes and scheme amendments.

Town Planning and Development (Subdivision) Regulations 2000

These regulations relate to the subdivision (including survey-strata subdivision) of land process provided for under the *Planning and Development Act 2005*.

2.2.2 Tiers of decision-making

The role of land use planning is undertaken by three main tiers of decision-makers as depicted in figure 2.

The Minister for Planning is a state government elected representative. The minister is responsible for overseeing the administration of planning agencies, maintaining and reviewing

planning legislation, directing statutory and strategic planning matters, approving regional and local planning schemes, and approving some planning policies.

The WAPC and the DoP form the next tier. The WAPC is an advisory body to the Minister for Planning and is the statutory planning authority responsible for land use planning and development matters throughout the State. This includes the determination of subdivision applications, administration of region planning schemes, endorsement of local planning strategies and the provision of advice to the minister on matters such as local government schemes and amendments.

The WAPC operates with the support of the DoP, which provides professional and technical expertise as well as administrative services for the WAPC. The department has delegated authority to deal with subdivision and development applications where they comply with state policy.

Local governments make up the final tier and are responsible for controlling development on a local level through the implementation of their local planning schemes and strategies. These planning controls basically control land uses and residential densities in the areas and must be consistent with state and regional planning strategies, schemes and policies. Local government can also be delegated the power to determine applications under a region scheme through section 16 of the *Planning and Development Act 2005*. There are currently 141 local governments in Western Australia.

Separate to the three tiers of decision-makers is the State Administrative Tribunal. This tribunal was established in Western Australia in 2005 (formerly the Town Planning Appeals Tribunal) and serves as an independent body that makes and reviews a range of administrative decisions, including decisions made under the *Planning and Development Act 2005* and subsidiary legislation. An applicant has the right to appeal a refusal and conditions of approval if dissatisfied with an outcome, and the State

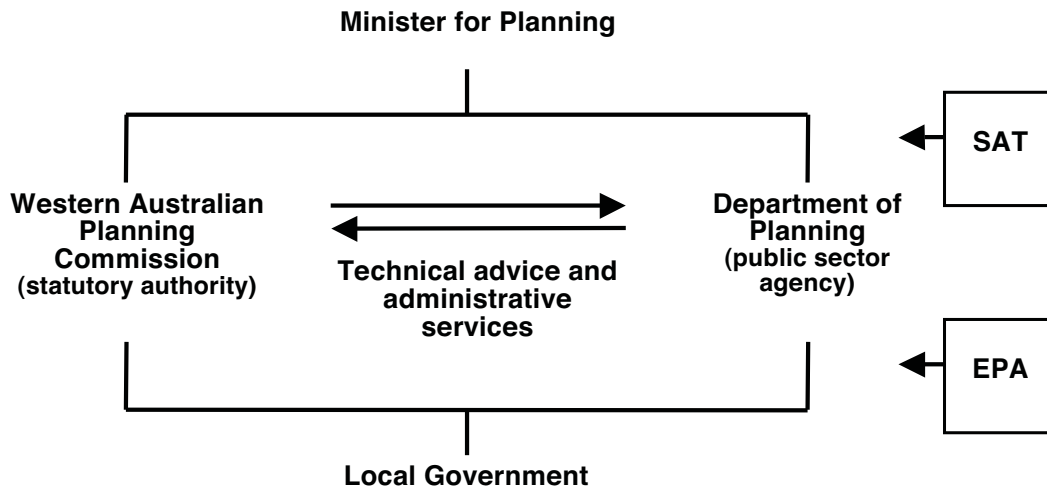


Figure 2: WA Land Use Planning Hierarchy

Administrative Tribunal will review the decision in light of all applicable legislation, statutory requirements and policy. Currently there is no provision for third party appeals against planning decisions in Western Australia.

The EPA is involved in the decision-making process through the environmental impact assessment process and has the ability to halt the planning process by determining a proposal to be environmentally unacceptable. This role is further discussed in section 3.3.

Where a development proposal has the potential to impact on matters of national environmental significance, involvement of the SEWPAC may also be required under the strategic approval provisions of the *Environmental Protection and Biodiversity Act 1999*. This is discussed further in section 7.3.2.

2.2.3 Strategic and statutory planning

There are two main categories of land use planning: strategic planning and statutory planning.

In strategic planning, the focus is on the big picture, long-term and regional planning. It aims to integrate a wide range of economic, social, environmental and infrastructure issues and looks at the way they might be managed.

It includes such tools as regional strategies, policies and local planning strategies. Essentially strategic planning provides the direction and rationale for statutory planning.

Statutory planning is the implementation arm of planning and includes those planning tools that control development and manage the process of land use, subdivision and urban development to give effect to strategic planning.

It is recognised that the strategic component of land use planning provides the greatest opportunities to facilitate improved NRM outcomes as it seeks to balance a wide range of environmental, social and economic issues and often occurs earlier in the land use planning process. Strategic planning tools such as regional and local planning strategies also provide the direction and rationale for statutory regional and local planning schemes and the resulting reservations, zonings, subdivisions and development applications determined under these.

2.2.4 Further information

It is not the intention of this paper to provide detailed information on the Western Australian planning system and its processes; rather it will examine those aspects that are relevant to the improved integration of NRM into the

land use planning system. Further information on the planning process itself can be found in the WAPC publication *An introduction to the Western Australian Planning System* which can be accessed at the WAPC website: <www.wapc.wa.gov.au/Publications/1468.aspx>.

2.3 Comparison of Western Australia’s land use planning and NRM systems with other states

A comparison of Western Australia’s land use planning and NRM processes with those operating in other states of Australia was undertaken to provide a context for the key findings and directions proposed in this paper. In Western Australia the land use planning system is characterised by a highly centralised system with the State having retained a strong degree of control over planning, unlike other states where systems are based on extensive delegation to local government. In addition Western Australia has separate planning and

environmental legislation and does not have statutory NRM arrangements for its regional NRM groups. As such, these groups have no direct influence over the planning process and links between the regional NRM groups and land use planning is primarily dependent on NRM information collected by the regional NRM groups and the role land use planning has in achieving the targets and actions identified in the NRM regional strategies.

In comparison, New South Wales and Victoria, have integrated environmental and planning legislation (NSW *Environmental Planning and Assessment Act 1979*, and Victorian *Planning and Environment Act 1987*) and statutory arrangements for NRM at the state and regional levels (NSW *Natural Resources Commission Act 2003* and *Catchment Management Authorities Act 2003*, and Victorian *Catchment and Land Protection Act 1994*).

Queensland also has integrated environmental and planning legislation, the *Integrated Planning Act 1997*, but lacks legislation to support State or regional NRM delivery (State of Queensland 2008). South Australia and Tasmania, on the other hand, have statutory NRM arrangements

State/Territory	Integrated environmental and planning legislation	Separate environmental and planning legislation	Statutory NRM arrangements	Non-statutory NRM arrangements
NSW	X		X	
QLD	X			X
Victoria	X		X	
SA		X	X	
Tasmania		X	X	
WA		X		X
NT		X		X
ACT		X		X

Table 2 : Status of integration of NRM into land use planning across Australia.

(SA *Natural Resources Management Act 2004*; Tasmanian *Natural Resource Management Act 2002*) but separate environmental and planning legislation.

2.4 How is land use planning relevant to NRM?

Land use planning is potentially a powerful tool that can support the achievement of a number of priority NRM outcomes across the State, including protection and sustainable management of water resources, biodiversity, agricultural land and basic raw materials. State and local government land use planning processes, in the broad context of sustainable development, can be used to identify and protect natural resources from incompatible land uses, locate development away from sensitive environments, and require sustainable use and management of natural resource areas. Opportunities for addressing NRM outcomes through the planning system are discussed further in chapter 4.

2.5 Establishing NRM as a valid planning consideration

To improve the integration of NRM into land use planning, it is important to establish natural resource matters as valid planning considerations in the decision-making process.

2.5.1 Legislative basis for the consideration of NRM in land use planning

The *Planning and Development Act 2005* establishes the legislative basis for the land use planning process. The Act, which came into effect in April 2006, is primarily a consolidation of previous planning legislation.

Some amendments were made to further include the consideration of environmental issues into the planning decision-making process. The concept of sustainability was recognised by the promotion of sustainable use and development of land being included as a primary purpose of the act. In addition, the Act expanded the membership and functions of the WAPC to include members with experience or practical knowledge of NRM matters.

Regulations made under the previous planning legislation continue to have effect under the *Planning and Development Act 2005*. The most notable of these are the Town Planning Regulations 1967, which set out the process by which local governments can make local planning schemes and local planning strategies.

Role of the WAPC

Part 2 of the Act establishes the WAPC and defines its functions and powers. The commission has a board of management which is responsible for performing the functions of the commission under the act. Its membership (under section 10) must include a person having experience in the field of coastal planning and management, a person having practical knowledge and experience in one or more of the fields of environmental conservation, NRM or heritage interests, the CEO of the department principally assisting in the administration of the *Environmental Protection Act 1986* and the CEO of the Water and Rivers Commission established by the *Water and Rivers Commission Act 1995*.

The function of the commission includes the coordination and promotion of land use, transport planning and land development in the State in a sustainable manner, which requires the consideration of social, economic and environmental outcomes in decision-making.

Formal referral procedures

The *Planning and Development Act 2005* sets up formal links to the *Environmental Protection Act 1986* by requiring formal referral of proposals to the EPA. This includes the referral

to the EPA of region planning schemes and their amendments (section 38), local planning schemes and their amendments (section 81) and may include the referral of state planning policies (section 32). This enables the EPA to determine whether a proposal is likely to have a significant impact on the environment and to set an appropriate level of environmental assessment. The Act then requires the relevant planning authority to undertake an environmental review of the proposed scheme or policy in accordance with instructions provided by the EPA.

In addition to requiring the referral of proposals to the EPA, the Act also establishes a consultation process for state planning policies, region schemes, local planning schemes, and their amendments, interim development orders, subdivision and development, which requires consultation with any public authority and person that may be likely to be affected by the proposal (sections 28, 43, 83, 89, 104 and 142). This enables agencies such as the Department of Water (DoW) and the Department of Agriculture and Food (DAFWA), and interested persons in the community (through public consultation periods) an opportunity to input into the planning process and provide advice based on areas of expertise. In making a decision, consideration must be given to comments received during the consultation process.

Environmental considerations as planning matters

The Act includes NRM considerations as matters which may be dealt with by local planning schemes, region schemes and state planning policies. Schedule 7 of the Act describes those matters which may be dealt with by a local planning scheme, and includes:

- *the conservation of the natural environment of the scheme area, including the protection of natural resources, the preservation of trees, vegetation and other flora and fauna, and the maintenance of ecological processes and genetic diversity; and*
- *the conservation of water.*

Schedule 7 forms the basis for those matters which may be dealt with by a state planning policy (section 26(3)), a region scheme (section 34(2)) and by a local planning scheme (section 69 (1)). The role of each of these planning mechanisms and their relevance to achieving NRM outcomes is further discussed in chapter 4.

2.5.2 State Planning Strategy

The *State Planning Strategy* provides the basis for long-term State and regional land use planning and sets a broad strategic direction and common vision for the sustainable development of Western Australia up until 2029. The strategy was prepared in accordance with a requirement under the *Planning and Development Act 2005* division 2, section 14 (b) which requires the WAPC to prepare and keep under review a planning strategy for the State that provides a basis for coordinating and promoting land use planning, transport planning and land development in a sustainable manner, and provides guidance for public authorities and local governments on these matters.

The strategy sets out five key principles relating to the environment, community, economy, infrastructure and regional development to guide the way in which future planning decisions are made. It establishes the need to protect and enhance the key natural and cultural assets of the State and deliver to all West Australians a high quality of life which is based on sound environmentally sustainable principles as a key consideration in land use planning decision-making.

The State Planning Strategy can be found at <http://www.planning.wa.gov.au/Plans+and+policies/Publications/52.aspx> and is further discussed in section 4.1.

2.6 Recognising the limitations of land use planning in achieving NRM

While the links between planning and NRM are well established, there are some fundamental limitations in using the planning system to achieve NRM outcomes. Recognising these limitations is essential to using the planning system effectively. Key considerations include:

- NRM is just one of many elements that land use planning must consider;
- land use change is required to trigger the land use planning process;
- the Western Australian planning system is a complex system with a tiered approval process, therefore NRM matters need to be considered at the appropriate stages to be effective;
- time frames associated with the planning approval and development process can be lengthy and may not coincide with time frames for achieving NRM outcomes; and
- the role of land use planning is to coordinate land use and development and therefore has a development focus.

NRM is just one element that must be considered

NRM is just one of many elements that land use planning must consider when seeking sustainable development outcomes. In addition to NRM/environmental implications, land use planning must also consider the economic and social implications of development and land use change. Similarly, land use planning is just one of numerous tools that can be used to achieve NRM outcomes. Others include, but are not limited to, regulation and licensing of resource use, education and awareness raising, landholder stewardship, resource assessment and monitoring.

Land use change

Land use planning is a process for managing and coordinating land use change, with the land use planning process generally triggered by a proposed change in land use. Land use planning is therefore most effective in addressing NRM matters where there is pressure for land use change, which is often most prevalent in the urban and peri-urban areas of the Perth metropolitan region and regional centres of Western Australia. Conversely, land use planning is likely to have limited influence in pastoral or broadacre farming areas where there is minimal change in land use. While some management or protection measures can be required through the planning system (for example a requirement to prepare and implement a foreshore management plan), these requirements are linked to conditions of approval of some form of subdivision or development.

Tiered approval process

The Western Australian planning system is made up of a multi-layered approval process with planning occurring at the State, regional and local levels. Prior to subdivision or development, a proposal must be in accordance with an endorsed local planning strategy and local planning scheme, be on land that is zoned appropriately and must be in accordance in any applicable endorsed structure plan. Approvals are required at each stage of the process and it is important that NRM considerations are made as early in the process as possible, to enable these considerations to flow through the process into the detailed design stages. It is very difficult to effectively address NRM at the subdivision and development stages where these issues have not been previously raised, as opportunities are limited to statutory requirements, such as the maximum requirement of 10 per cent public open space. Chapter 4 outlines the opportunities and constraints for addressing NRM through each stage of the planning process.

Time frames

Time frames associated with making changes to the land use planning framework and in the planning approvals process, can result in significant delays in achieving NRM outcomes through land use planning. The integration of NRM considerations into regional and local planning strategies has been identified by the EnviroPlanning project as providing the greatest opportunity for improving the consideration of NRM in decision-making (see sections 4.3 and 4.4). The time taken to prepare, obtain endorsement and amend such strategies can take upwards of 12 months. In the absence of a strategic framework, statutory planning is still undertaken, and decisions can be made that may compromise the direction of the planning strategy.

Similarly, when NRM considerations are included in the planning framework (eg NRM provisions in a local planning scheme), the time taken to modify these provisions should best practice change, can be lengthy.

Development focus

Land use planning is a process for coordinating land use and development. Historically, the focus of land use planning in Western Australia has been development, with success of planning often measured according to land release measures such as number of residential lots created. In some circumstances this has resulted in a general lack of monitoring and evaluation to ensure NRM outcomes sought as a condition of approval were achieved. This is often related to a lack of resources and expertise in planning decision-making bodies for dealing with environmental considerations. It is important to examine whether or not desired NRM outcomes set at the strategic planning level were achieved through the design process, ensure approval conditions related to NRM outcomes were successfully implemented and ongoing management is secured, and undertake compliance monitoring. Resources to undertake this work are often limited, particularly in local government.

In addition to the above limitations, there are further barriers to the integration of NRM and land use planning, including institutional barriers, a lack of training and resources, and a lack of communication and coordination between key NRM and planning organisations. These barriers are further explored in chapter 3 of this report.

3 Key agencies in NRM and land use planning

There are a number of different agencies and organisations responsible for NRM in Western Australia. This chapter provides an overview of the role of each of these agencies, how their role interfaces with land use planning and specific programs that are being undertaken that may be of relevance. Further information on the role of the agencies as it relates to the different stages of the planning process can be found in chapter 3.

3.1 The Department of Planning and the Western Australian Planning Commission

As mentioned in section 2.2.2, both the WAPC and the DoP have important roles in relation to land use planning decision-making. The WAPC determines subdivision applications, administers region planning schemes, endorses local planning strategies, and advises the minister on matters such as local planning schemes and amendments. The DoP provides professional and technical expertise and administrative services to the WAPC. The department also has delegated authority to determine subdivision and development applications, where these comply with State policy.

The DoP and WAPC have a significant role in integrating NRM into land use planning, through the development and implementation of the *State Planning Framework*, setting the strategic planning direction for the State and through its role in decision-making. This role is discussed in more detail in chapter 4 where the opportunities available for integrating NRM through State and regional planning are further explored. This section will therefore be limited to the

organisational structure of the department and the role the department plays in the State's NRM program.

3.1.1 Department of Planning organisational structure

The DoP has recently undertaken a review and realignment of its organisational structure, with one of the more significant changes being the integration of environmental planning expertise throughout a number of directorates in the department's Regional Planning and Strategies Division (appendix 4). This change is in response to the need to integrate consideration of NRM and environmental matters throughout the department, rather than centralising this function in one directorate.

The review and resulting realignment of DoP's organisational structure provides a significant opportunity to better address NRM matters through DoP and WAPC processes, provided adequate resources are made available and processes are established to support the consideration of NRM matters. Additionally, the review and realignment of DoP also provides an opportunity to take a more focused approach to supporting the development of land use planning initiatives where there is high development pressure and high environmental values.

Currently, the integration of environmental planning expertise is limited to the southern, central and northern country planning regions and does not yet include the Perth, Peel and South-West planning and strategy division. Strategic priorities and forward planning in the DoP's publication *Planning Makes it Happen - a blueprint for planning reform* identifies the need to establish a strategic vision for metropolitan Perth and Peel to cater for the

increasing population of the region. This includes the development of urban growth strategies and structure plans for each of the growth corridors in this region and presents a significant opportunity to ensure the effective integration of environmental considerations early in the planning process. The incorporation of environmental expertise into the Perth, Peel and South-West planning and strategy division would provide a valuable resource to assist in this process.

While the integration of expertise into each of the regional teams has improved their capacity to consider NRM related issues in decision-making, training would raise further awareness of the policy requirements and their implications for decision-making, provide practical implementation guidance, and assist in identifying resources available to planners to ensure sustainable outcomes.

3.1.2 DoP and WAPC involvement in the State NRM program

The DoP is involved in the State NRM program through its involvement in the current governance structure of the program as represented in figure 3 below.

The NRM Ministerial Council is the peak decision-making body for NRM in Western Australia. The Minister for Planning is a member

of the council and is supported by the DoP. The Council of Natural Resource Agency Chief Executives (CONRACE) is responsible for developing the State NRM framework, under the direction of the NRM Ministerial Council. The Director General of DoP is a member of CONRACE. The DoP is also represented on the NRM Senior Officers Group, which provides interdepartmental advice to CONRACE and assists with the coordination and delivery of the State NRM program.

Through DoP's involvement in the State NRM program, the integration of NRM into land use planning has been recognised as a key priority of the State NRM Program, and DoP/WAPC has received over \$1.9 million for the delivery of NRM projects in 2010.

Given the links between land use planning and NRM it is important that the DoP maintains its representation on relevant NRM committees at the State level. DoP representation on boards of regional NRM groups can be advantageous, although the resources to support such representation are limited. The department's efforts in working with the regional NRM groups are probably best targeted at supporting the development and delivery of partnership projects that assist NRM matters to be addressed through land use planning, rather than ongoing representation on the boards of regional NRM groups.

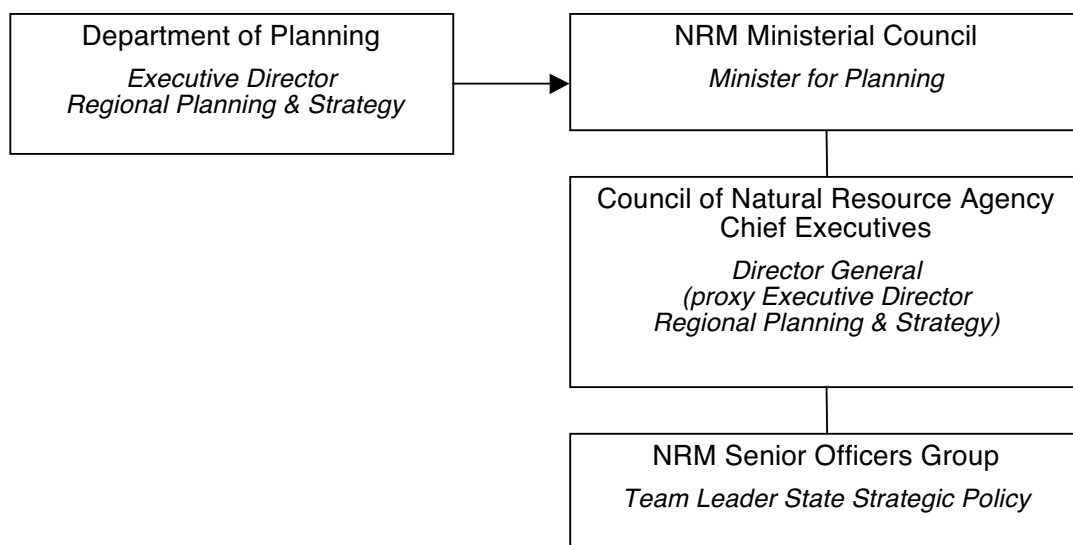


Figure 3: Current governance structure and DoP's representation in the State NRM program

Recommendations and actions:

5. *Integrate environmental planning expertise into the metropolitan, Peel and South-West planning directorates of the DoP.*
6. *Continue DoP involvement in the State NRM program, including representation on the Council of Natural Resource Agency Chief Executives and NRM Senior Officers Group.*

3.2 Local government

Local government is responsible for policy development and implementation of land use planning as well as regulating a wide range of activities that may impact upon NRM. As managers of public land, local government also has a key role to play in translating the policies of Commonwealth and State Government into on-ground projects.

The *Local Government Act 1995* and the *Planning and Development Act 2005* provide local government with a range of functions, powers and responsibilities to influence NRM on public and private land. The *Local Government Act 1995* recognises that in carrying out its functions, a local government is to use its best endeavours to meet the needs of current and future generations through integration of environmental protection, social advancement and economic prosperity. Furthermore, local governments are required to prepare a plan for the future of their district that establishes broad objectives for the local government over a two year timeframe. It is through these future plans that broad direction can be established and resources allocated to undertaking activities that may include those relevant to NRM and land use planning. This can include resourcing actions identified in the local planning strategy. Under the *Planning and Development Act 2005*, local government has an important role in integrating NRM and land use planning, as they are responsible for preparing and administering their local planning strategies and schemes as further discussed in chapter 4.

3.2.1 Local government capacity

The capacity of local government to address NRM matters through the preparation and administration of local planning strategies and schemes is varied. WALGA's draft report *The Journey: Sustainability Into the Future* acknowledged that the attraction and retention of appropriately qualified land use planning staff is an issue of concern for many local governments. The majority of local governments outside of the Perth metropolitan region and other regional centres have limited environmental planning capacity and often rely on consultants to support their land use planning functions, particularly the more complex and time consuming activities, such as preparing or amending local planning strategies and schemes.

The limited capacity of local government to support NRM through land use planning is perhaps most evident in those local governments with extensive peri-urban areas. Peri-urban areas are transitional areas between urban and rural land and, as such, represent an important interface between NRM and land use planning due to the significant environmental assets they contain and the diversity of land uses that they support. Often the demand for land use change and development in peri-urban areas exceeds the resources available to State and local government to effectively plan for such development.

Local government is also under-resourced for large scale management of its natural resources. This includes a lack of staff resources for checking compliance and enforcement of conditions of planning approvals, as well as on-ground management of natural resources that are to be protected through retention in local reserves.

3.2.2 Improving local government capacity

There are a number of options to improve local government's capacity to achieve NRM outcomes through land use planning, including

delivery of partnership projects, more efficient use of local government resources, provision of funding support and State Government assistance.

Partnership projects

The development of partnership projects provides an opportunity for various stakeholders to more efficiently and effectively engage and support local government to address NRM matters through local planning strategies and schemes. WALGA, as the peak industry body for local government, has played an important role in developing partnership projects to assist local governments to achieve NRM outcomes through land use planning. In addition to the EnviroPlanning project, WALGA is a partner in a number of projects, including biodiversity, water and climate change projects that seek to better integrate consideration of those matters through State and local government land use planning processes. WALGA has delivered the Perth and South-West Biodiversity Projects in partnership with the Perth Region and South-West NRM regional groups and State Government. WALGA has also partnered with DoP, the Department of Environment and Conservation (DEC) and the DoW in sourcing Commonwealth Government funding through the Coastal Catchments Initiative to support development of the *Better Urban Water Management Framework*. More recently, WALGA entered into a partnership with the DEC to deliver the Climate Change in Local Government project, which seeks to build the capacity of local government to address climate change issues. The climate change project will, amongst other things, develop model policies to assist local government to consider climate change issues through their land use planning decisions.

Efficient use of local government resources

More efficient use of local government resources might be achieved through amalgamation of local governments, formation of regional organisation of councils, or the preparation of regional local planning strategies.

In recent years there has been some debate about the role of amalgamation of local governments to overcome resource shortages and facilitate more efficient service delivery. The advantage of amalgamations from a land use planning perspective is that it would assist in facilitating a more regional approach to land use planning, as local planning strategies and schemes could be prepared over a wider land area.

An alternative to the amalgamation of local governments is the formation of regional organisation of councils or voluntary regional organisation of councils. The South East Avon regional organisation of councils, which consists of the shires of York, Cunderdin, Quairading, Beverley and Brookton, is one such example. This regional organisation of councils has formed a planning and land use management group with representatives from each of the shires and state NRM agencies, to discuss opportunities to improve planning and land use management across the region. The planning and land use management group recently initiated a project, funded through EnviroPlanning's Local Government Partnership program, to develop a local planning policy for tree farming in low rainfall areas across the five shires. This management group has also initiated a project to facilitate a more consistent approach to land use planning decision-making across the five shires. The project involves reviewing each local government's planning framework and developing a checklist, process and geographic information systems to support planning and land use planning decision-making across the five shires.

When preparing local planning strategies, local governments could consider cooperation with other councils in their region or catchment to address common NRM issues. Water and biodiversity related issues are often best addressed in a regional context, so cooperation between neighbouring local governments would provide an opportunity to improve NRM outcomes.

Recommendations and actions:

9. *Provide support to local governments to improve the integration of NRM into land use planning:*
 - b) *Explore opportunities for regional cooperation across local governments to share planning resources.*
 - c) *Continue to seek funding through the State NRM program and the Commonwealth Government's Caring for our Country program, and administer funding to support local government projects that address the integration of NRM into land use planning*

Funding support and State Government assistance

In recent years the EnviroPlanning project has provided funding assistance through a local government partnership program. A total of \$456 542 was invested to support achievement of NRM outcomes through land use planning. At regional forums delivered by EnviroPlanning, local governments and other stakeholders indicated a strong desire for continuation of grant funding to support land use planning initiatives to better address NRM.

In 2005-07 the DoP received funding from the WAPC for the employment of regional support officers to provide support to low capacity local governments in the preparation of local planning strategies and schemes. Funding for the project was for one year only, however benefits to local governments included improved guidance on the process of preparing a local planning strategy, education forums and general support to local governments. While the structural review and realignment of DoP's State and Regional Policy Division (resulting in three planning directorates for southern, central and northern regions), will potentially provide some opportunities to better support local government with preparation of local planning strategies and schemes, consideration should be given to how low capacity councils, particularly those

with extensive areas of peri-urban areas can be further supported.

It is suggested that consideration should be given to the formation of a local government support unit in DoP to prepare local planning strategies and schemes for lower capacity local governments.

Recommendations and actions:

9. *Provide support to local governments to improve the integration of NRM into land use planning:*
 - d) *Provide technical planning support to local governments for the integration of NRM into land use planning.*

3.3 Environmental Protection Authority

The EPA is a statutory authority established under the *Environmental Protection Act 1986*, and is the primary provider of independent environmental advice to the government. The EPA consists of five members, including a full-time chairperson, and is supported by the Office of the EPA. The EPA's objectives are to protect the environment and to prevent, control and abate pollution and the authority achieves this primarily through:

- providing advice to the community, stakeholders, developers, regulators and those in government who formulate environmental policy;
- preparing environmental protection policies which have the force of law; and
- assessing development proposals and activities that have the potential to impact on the environment, and advising the Minister for the Environment regarding their environmental acceptability.

Further information on the role of the EPA can be found on their website <www.epa.wa.gov.au>.

3.3.1 Office of the EPA

The Office of the EPA was established in November 2009 as a dedicated department to service the EPA. Previously, the EPA Services Unit (comprising the Environmental Impact Assessment and Policy Divisions of DEC) provided professional and technical support to the EPA in carrying out its duties.

The Office of the EPA is responsible for the entire life cycle of environmental impact assessment, from proposal assessment through to compliance monitoring and enforcement of the implementation conditions set by the Minister for Environment. The Office of the EPA will also focus on key strategic and emerging policy issues and ensure that the EPA and the Minister for Environment are well supported in establishing an effective and transparent policy context for environmental protection and development across the state.

3.3.2 Environmental impact assessment and advice

The EPA's role in land use planning is clearly established through the interface between the *Environmental Protection Act 1986* and the *Planning and Development Act 2005*, which sets up a formal referral and environmental impact assessment process for development proposals, planning schemes and scheme amendments. The *Planning and Development Act 2005* requires the formal referral of schemes to the EPA and establishes how the environmental impact assessment process is integrated into the planning process. The *Environmental Protection Act 1986* sets up the mechanisms for assessment and the process of environmental impact assessment and provides the EPA with the ability to provide informal strategic environmental advice when requested by the minister.

Strategic environmental advice (section 16(e))

Section 16 (e) of the Act provides for the EPA to 'advise the minister on environmental matters generally and on any matter which he may refer

to it for advice, including the environmental protection aspects of any proposal or scheme'. Advice provided under this section of the Act is non-binding and has been used primarily to identify key environmental issues associated with broadscale proposals, including advice on whether a proposal may be potentially acceptable.

One recent example of the use of strategic environmental advice is the Preston industrial park development, a project covering 2950 hectares. The EPA provided strategic advice to the Minister for the Environment, on the project being undertaken by the DoP, on behalf of the WAPC, to develop a structure plan for the industrial park. Recommendations were provided on the need to protect significant areas of regionally significant vegetation and other natural areas required for the purpose of enhancing and restoring ecological linkages, and on the need for additional studies on a range of matters, including wetland buffers, water quantity and quality, acid sulphate soils, floodway management and waste management. The DoP and the EPA have been collaborating on a process to resolve the environmental matters at an early stage in order to allow for detailed planning for the area to proceed (EPA Bulletin No. 1282).

Assessment of schemes (section 48)

The *Planning and Development Act 2005* requires the referral of region schemes, local planning schemes and their amendments to the EPA by the responsible authority (the local government in respect to local planning schemes and amendments, and the WAPC in respect to region schemes and amendments) for assessment. The underlying reasoning behind requiring the referral of schemes and amendments is to ensure the environmental suitability of land for proposed uses prior to rezoning, and identification of critical environmental management requirements affecting the use and development of the land, so that it is not necessary for all subsequent development and subdivision applications to be subject to environmental assessment. Section

48A-G of the *Environmental Protection Act 1986* prescribes the process for the assessment of schemes.

Currently all schemes and amendments are required to be referred regardless of the level of potential impact on the environment the amendment may have. In addition, referral of scheme amendments by the local government occurs prior to consideration of the validity of the amendment by the WAPC, which can result in the EPA assessing a proposal that is unlikely to be approved (eg an amendment that is inconsistent with a local planning strategy). There is a potential ability to further streamline the environmental assessment process.

Referral of proposals (section 38)

Section 38 of the *Environmental Protection Act 1986* requires all proposals that are likely to have a significant effect on the environment to be referred to the EPA for assessment by the decision-making authority. Subdivisions and development applications are types of proposals that fall under this category. Not all significant proposals are required to be referred to the EPA. Proposals are generally not required to be referred if they:

- a) have environmental impacts that can be managed by enforceable requirements;
- b) are in accordance with an assessed scheme that has had all the environmental issues previously assessed;
- c) have been previously referred;
- d) are likely to be refused; or
- e) will be subject to an amendment.

In addition to significant proposals, amendments to the Act in 2003 introduced the ability of the EPA to assess strategic proposals under section 38. Under section 37B(2) a proposal is classified as a strategic proposal if, and to the extent with which it identifies:

- a) a future proposal that will be a significant proposal; or

- b) future proposals likely, if implemented in combination with each other, to have significant effect on the environment.

The concept of strategic environmental assessment of proposals is relatively new and the EPA is currently trialling the assessment of strategic proposals before publishing detailed guidelines. Referral of a strategic proposal will usually be by the proponent on a voluntary basis and is initiated through discussions with the EPA.

Environmental impact assessment

In determining the environmental significance of a proposal and deciding whether a proposal will be formally assessed, several factors are taken into consideration as prescribed in the Environmental Impact Assessment Administrative Procedures 2010. These include:

- a) the values, sensitivity and quality of the environment which is likely to be impacted;
- b) the extent (intensity, duration, magnitude and geographic footprint) of the likely impacts;
- c) the consequence of the likely impacts (or change);
- d) resilience of the environment to cope with change;
- e) the cumulative impact with other projects;
- f) level of confidence of the impacts predicted;
- g) objects of the Act, policies, guidelines, procedures and standards against which a proposal can be assessed;
- h) the public concern;
- i) presence of strategic planning policy framework; or
- j) the extent to which other statutory decision-making processes meet the EPA's objectives and principles for EIA.

The *Administrative Procedures 2010* (final draft) have been produced to incorporate recent reforms to the EPA's environmental impact assessment process. Further information on the environmental impact process can also be found in EPA Guidance Statement No. 33.

Generally the EPA formally assesses about 10% of proposals and schemes in any financial year. In 2009/10 a total of 393 development proposals and planning schemes were referred to the EPA for consideration, with the EPA deciding that 42 of the referred proposals warranted assessment. A further 134 referrals did not require assessment but specific advice was provided to proponents and approval agencies, primarily in relation to planning schemes. This advice is provided to decision-makers for consideration in the decision-making process, and is not legally binding on either the decision-maker or the proponent. There is a need to ensure that the advice provided is clear about the expectations of the EPA, regarding the management of any potential impact and the requirements to be addressed prior to future planning stages, to ensure that these can be adequately implemented. For example, when providing advice on a scheme amendment, it may be beneficial for the advice to recommend standard scheme provisions to ensure requirements are assessed at the subdivision stage. It is suggested that a review of the standard environmental conditions and advice provided by DEC and the Office of the EPA be undertaken in order to improve the transferability of environmental protection requirements through the planning system. The DoP is currently reviewing its model subdivision conditions and this also presents an opportunity for the DEC and the Office of the EPA to ensure that environmental conditions being imposed are reflective of their requirements.

Sometimes the proponent, or responsible authority, consults with the Office of the EPA or the DEC region before, or upon, making a referral to the EPA, and may make modifications before the level of assessment is set. This is a factor that contributes to the low percentage of formal assessments undertaken by the EPA.

In addition, the EPA has an expectation that planning decision-makers will ensure environmentally sound outcomes at each stage of the planning process through the implementation of requirements set in planning strategies, schemes and policies. This position is set out in EPA Guidance Statement No. 33 and reduces the need to formally assess applications with environmental implications that can be addressed through the planning process.

There are currently a number of issues with this approach arising from a number of factors, including:

- A common misconception that if a proposal or scheme is not formally assessed by the EPA, all environmental issues have been considered to be addressed.

As stated above, in determining the need to formally assess a proposal, the EPA considers the ability of the decision-maker to impose conditions and determine measures through its own assessment to ensure environmental issues are addressed. The EPA expects that planning decision-makers will ensure environmentally sound outcomes through each stage of the planning process, through the implementation of state and local policy.

- A perception that the consideration of environmental matters in the land use planning system is primarily or solely the responsibility of the EPA or the DEC.

As discussed in section 2.5, the *Planning and Development Act 2005* establishes a legislative basis for the consideration of NRM in land use planning. In addition, the *State Planning Framework*, including the *State Planning Strategy* and state planning policies require the consideration of environmental matters in decision-making. Therefore planning decision-makers have a responsibility to consider and address NRM issues in land use planning.

- A lack of clear policy implementation guidance for how NRM issues should be addressed through the planning system.

While the *State Planning Framework* does provide the basis for considering NRM issues in decision-making, a review of the framework (as further discussed in section 4.2.3) identified a number of limitations in the ability of the framework to provide direction on the implementation of the policy. This increases reliance on the advice and guidance of the environmental agencies in their particular expertise in addressing environmental issues in land use planning.

- A lack of agreement over the roles and responsibilities of each agency in addressing environmental issues in planning.

In order to ensure the effective consideration of NRM issues in planning, there needs to be a clear understanding of the roles and responsibilities of each agency in respect to providing advice to the DoP in aiding decision-making. Confusion still exists over the role of each agency, the level of responsibility of each agency in providing advice, and the relationships between the regional offices.

Agreement between the EPA and the WAPC on the expectations each agency has in relation to the roles and responsibilities for addressing environmental impacts through land use planning, would assist in clarifying the current situation. The preparation of a memorandum of understanding between the EPA and the WAPC, similar to that previously agreed to, regarding the implementation of procedures for the assessment of schemes and amendments, is one means of achieving this and is consistent with the recommendations arising out of the WAPC's document *Planning Makes It Happen - a blueprint for planning reform*, where a memorandum of understanding is proposed to 'ensure improved understanding of all agencies expectations, a more collaborative approach to

assessment and approvals and a greater focus on timely decisions and brokering consensus outcomes'.

Recommendations and actions:

4. *Establish agreement between the WAPC and the EPA on the roles and responsibilities for NRM matters through land use planning and decision-making:*
 - a) *prepare a memorandum of understanding;*
 - b) *establish priorities for strategic environmental planning (eg EPA section 16 advice);*
 - c) *develop and support delivery of projects which seek to address information and policy gaps identified through annual review of priorities for integrated environmental planning in consultation with EPA/WAPC, NRM agencies and local government; and*
 - d) *develop environmental conditions and advice for planning proposals, schemes and amendments.*

3.3.3 Environmental Protection Agency guidance statements

Guidance statements are issued by the EPA to assist proponents, consultants and the public generally to gain additional information about the EPA's thinking in relation to aspects of the environmental impact assessment process. The guidance statements provide the basis for EPA's evaluation of, and advice on, development proposals, schemes and their amendments subject to environmental impact.

EPA Guidance Statement No. 33 *Environmental Guidance for Planning and Development* is particularly relevant to land use planners and was developed as a resource for local government, state government agencies, consultants, proponents and the public to

assist in achieving environmentally acceptable outcomes. The stated purpose of this guidance statement is to:

- describe the processes the EPA may apply under the *Environmental Protection Act 1986* to land use planning and development in Western Australia, in particular the environmental impact assessment process applied to schemes; and
- provide information and advice on a range of environmental issues and their protection and management.

The guidance statement directly addresses the intersection of environmental assessment and protection with land use planning and is broken into five main parts:

- part A – an overview of the environmental protection and land use planning in Western Australia;
- part B – EPA's advice on protecting a range of biophysical factors to assist land use planning;
- part C – EPA's advice on managing potential pollutants, waste, and water, to assist land use planning;
- part D – EPA advice on protecting aspects of the biophysical environment of cultural and social significance, and the EPA position on risk; and
- part E – sources of information.

The guidance statement serves as a useful repository for land use planners on NRM considerations in the land use planning process, and potentially has a significant role to play in ensuring environmental matters are integrated into the decision-making process.

Part A of the guidance statement:

- defines the roles of the EPA and the DEC in relation to land use planning;
- provides an overview of the environmental impact assessment process;

- explains the relationship between Western Australian environmental impact assessment process and the requirements of the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999*; and
- provides an overview of the Western Australia planning process and the links to environmental consideration.

Two scales of planning are identified and used throughout the guidance statement:

- broadscale planning – strategic and most structure planning, region schemes and their amendments, whole of municipality town planning schemes and some town planning scheme amendments; and
- local area planning – subdivision and development, some town planning scheme amendments and detailed local structure plans.

The guidance statement includes a checklist of environmental factors and outlines a process to assist the appropriate consideration of environmental issues for both scales of decision-making. In implementing these steps there is a need for support from relevant state agencies (eg DEC, DoW, DAFWA) to assist local government in determining priority environmental issues to be considered in the decision-making process, as the level of expertise required to adequately assess the implications of development on the environment may not always be present in the decision-making authority. It is suggested that an opportunity exists for relevant agencies to provide this direction through regional forums for those areas experiencing increasing development pressure. This concept is further discussed in section 4.3.

Parts B, C and D of the guidance statement provide more detailed advice on specific environmental factors or issues that may need consideration in land use planning. Useful information in these sections includes potential impacts and threats to environmental assets,

checklists for broadscale and local scale planning, a list of other relevant EPA guidance documents and policies, advice on when a proposal affecting the assets should be referred to the EPA, and measures to manage or protect environmental assets.

While the guidance statement provides a good basis for land use planners, there is a lack of awareness of the document and understanding of how the document can be used. The comprehensive nature of the document means it is difficult to ascertain which components are to be addressed by the local government without direction from the Office of the EPA or DEC, and the size itself can be daunting for a land use planner. This is not to suggest that the guidance statement should be reduced in size, rather that an awareness raising and training program by the the Office of the EPA/DEC would be beneficial for users of the document.

3.4 Department of Environment and Conservation

The DEC is the lead agency responsible for the protection and conservation of many aspects of the State's environment, including the management of national parks, marine parks, conservation parks, nature reserves, State forest and timber reserves. The department was formed in July 2006 bringing together functions of the Department of Environment (excluding functions transferred to the DoW) and the Department of Conservation and Land Management. Legislation administered by the DEC includes:

- *Carbon Rights Act 2003*
- *Conservation and Land Management Act 1984*
- *Contaminated Sites Act 2003*
- *Environmental Protection Act 1986*
- *Environmental Protection (Landfill) Levy Act 1998*

- *National Environment Protection Council (Western Australia) Act 1996*
- *Reserves (National Parks and Conservation Parks) Act 2004*
- *Reserves (National Parks Conservation Parks and Other Reserves) Act 2004*
- *Reserves (National Parks Conservation Parks Nature Reserves and Other Reserves) Act 2004*
- *Sandalwood Act 1929*
- *Wildlife Conservation Act 1950*

Key functions of the DEC include regulatory, management, protection and advisory roles in many aspects of the State's natural resources such as biodiversity and natural areas (conservation reserves, threatened ecological communities and rare species, wetlands), DEC managed areas (conservation estate), and pollution prevention and management (acid sulphate soils, contaminated sites, discharges air quality, noise and vibration). The DEC is responsible for fire preparedness, pest animal and weed control on 89 million hectares of unallocated Crown land and unmanaged reserves.

Links to land use planning

The DEC's role in land use planning is predominantly as an advisory body to decision-making bodies (as opposed to the EPA who have a statutory role in providing advice to the minister), to assist the sustainable use and development of land in the State with a particular focus on key public assets, including key species and communities, habitats and other conservation areas. The DEC receives planning referrals from the DoP, local governments and redevelopment authorities, including statutory and non-statutory referrals, and is responsible for ensuring subdivision conditions relating to their functions are met. Resource arrangements in the DEC have resulted in a need to streamline process and input into the planning system, with input generally restricted to general guidance and targeted advice on projects where there is a clear need for DEC's advice.

When there is a clear need for DEC advice, the first points of contact in the department for land use planning related matters are the regional offices as there is currently no central coordination of planning referrals. A map of the DEC regions and a contact list has been included in appendix 5. A central coordination section is being established in the DEC to promote the delivery of effective advice on targeted planning referrals such as key strategic projects. The DEC has advised that there is a limited capacity to respond to requests for advice on land use planning referrals. At the regional forums held by EnviroPlanning, this was of particular concern to local governments as limited support was available to assist decision-makers in addressing environmental matters in which they have did not have sufficient expertise.

When the split into the functions of the DoW and the DEC occurred, the dedicated land use planning officers from the Department of Environment trained in providing advice on pollution management and other issues were absorbed by the DoW, leaving the DEC with restricted capacity to respond to land use planning referrals. This and other issues have been recognised by the DEC with a review of the delivery of planning and development advice in DEC having recently been undertaken. The review made recommendations on processes in the DEC for providing land use planning advice, including the role of DEC in land use planning, and providing guidelines on the factors on which DEC is able to provide advice. Key recommendations included establishing a central coordination section. DEC is developing training and guidelines to assist regions to deal with land use planning issues.

EPA Guidance Statement No. 33 as discussed in section 3.3.3, provides guidance on protecting and managing a range of environmental factors during planning. The DEC encourages use of this document for advice on how to deal with certain matters in the first instance, and as mentioned above, the comprehensive nature of the document means it is difficult to ascertain which components are to be addressed by the

local government without direction from the EPA or the DEC.

Further information on the DEC's role in land use planning, along with guidance on land use planning referrals and the factors on which the DEC may comment, can be found at: <<http://www.dec.wa.gov.au/content/category/31/603/1761/>>.

The DEC and the DoP are developing an administrative agreement for development and subdivision proposals that includes guidelines on the referral of proposals to the DEC.

3.5 Department of Water

The DoW was formed in January 2006, following the restructure of the Department of Environment and Department of Conservation and Land Management, for the purposes of ensuring the states water resources are planned and managed to meet community requirements, now and into the future. The department's Strategic Plan 2007-08 summarised the key responsibilities of the department into four key roles:

- Water governance:
'To improve and facilitate the governance of water resources and the water industry so all West Australians have access to the water services they need.'
- Water knowledge:
'To increase our knowledge of Western Australia's water resources and set values that govern its management.'
- Water use and impact management:
'To manage people's use of and impact on water resources.'
- Capacity building:
'To increase our own knowledge and that of the community, leading to appropriate corporate, community and individual actions.'

Links to land use planning

In the *State Planning Framework*, water issues have been clearly established as a relevant planning consideration. *State Planning Policy 2 Environment and Natural Resources Policy* recognises water as fundamental to human life and the environment and provides broad guidance on the matters that should be considered in local planning strategies, schemes and in decision-making, including matters relating to wetlands, waterways, floodways, drinking water sources and drainage. This state planning policy is further supported by supplementary policies, including:

- *State Planning Policy 2.1 Peel-Harvey Catchment;*
- *State Planning Policy 2.2 Gnamagara Groundwater Protection;*
- *State Planning Policy 2.3 Jandakot Groundwater Protection;*
- *State Planning Policy 2.7 Public Drinking Water Source; and*
- *State Planning Policy 2.9 – Water Resources Policy.*

The State Water Plan outlines the Government’s commitment to strategically and effectively manage water resources recognising the strong link with water planning and land use

planning. The plan states ‘*Water planning should inform and integrate with land use planning. Increasingly, it is intended that water planning should precede land use planning. This will not only provide an important natural resource management context for land planning, but will identify resource opportunities, constraints and incompatible land use activities.*’ The DoW is responsible for the implementation of the State Water Plan and has a strong commitment to the integration of water planning with land use planning.

The DoW provides comments on statutory planning referrals (scheme amendments, subdivisions and development applications) through its regional offices on a range of issues relating to the protection of the State’s water resources. The regions are supported by a central land use planning section in head office that deals primarily with procedural and policy issues, the maintenance of a central database, training and the provision of advice to the regions where required. Statutory referrals are in the first instance to be directed to the appropriate regional office.

As well as providing recommendations and advice on statutory referrals, the department is increasing its focus on improving the interface between strategic water planning and strategic

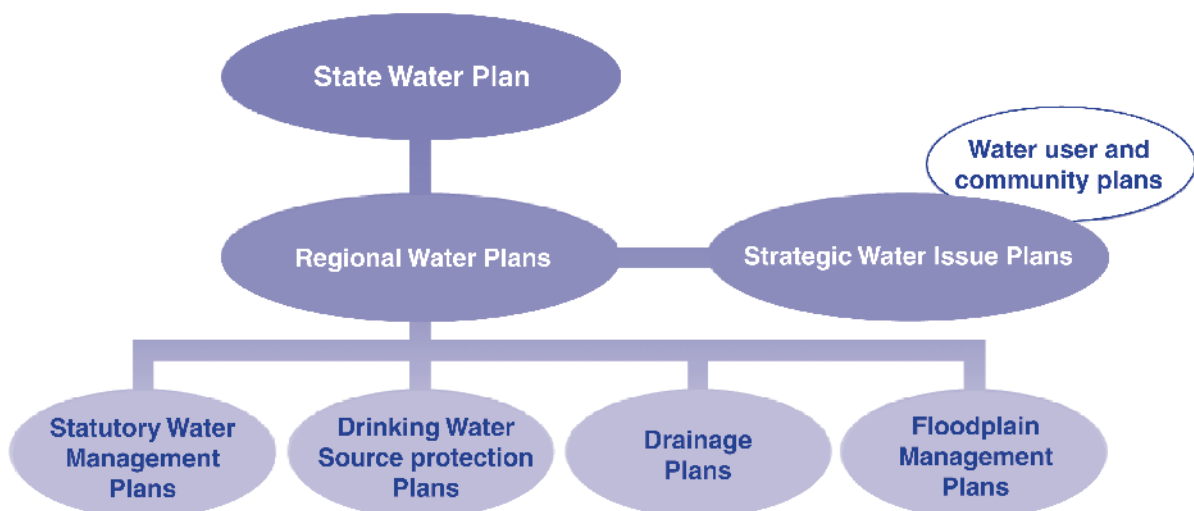


Figure 4 - Water Planning Framework (as taken from South-West Regional Water Plan)

land use planning (figure 4) and is responsible for the preparation and implementation of:

- regional water plans
- drinking water source protection plans
- drainage plans
- floodplain management plans
- waterway management plans
- allocation plans

There is a need for the DoW and the DoP to maintain strong communication links to ensure strategic level water planning can occur ahead of the development front, and prevent the need for consideration of water issues on a case-by-case basis at the statutory planning level. Greater collaboration between the DoP and the DoW in setting priorities for regional water planning by the DoW will ensure information is available in a timely manner for development hotspots in the State. The Integrated Land and Water Planning Group which consists of officers from the DoW and the DoP may be an appropriate forum for this to be undertaken.

Better Urban Water Management Framework

The DoP, WALGA, DEWHA and the DoW have worked collaboratively to develop the *Better Urban Water Management Framework*. This framework has been designed to ensure that an appropriate level of consideration is given to the total water cycle at each stage of the planning system requiring adequate investigations to be undertaken prior to planning decisions being made. It recognises the role that land use planning has in achieving better water management, and seeks to align requirements with the different stages of the planning process. The development of the framework demonstrates the benefits of collaboration between the planning and NRM agencies in achieving integration of NRM considerations in land use planning.

The diagram (figure 5) below provides an overview of the framework and how water planning is considered in the hierarchy of the planning system.

Essentially, the framework provides guidance for developers, planners and decision-makers regarding the consideration of water issues in planning for greenfield and redevelopment areas and is applicable to residential, commercial, industrial and rural-residential developments. The framework recognises the hierarchy of planning and seeks to ensure an appropriate level of consideration of water issues is considered at each stage. The framework is available from: <http://www.planning.wa.gov.au/Plans+and+policies/Publications/1725.aspx>.

3.6 Department of Agriculture and Food Western Australia

DAFWA, according to its Strategic Plan 2003-2013, seeks to accelerate the success of the agriculture, food and fibre industries through information, science and innovation, responsible management of the resource base, policy and regulation across all elements of the supply chain. DAFWA is responsible for the legislative requirements under the *Soil and Land Conservation Act 1945*, *Agricultural and Related Resources Protection Act 1976*, *Exotic Diseases of Animals Act 1993* and *Stock Diseases Act and Regulation 1968*.

In a land use planning context, *State Planning Policy 2.5 Agricultural and Rural Land Use Planning* and *State Planning Policy 2.1 Peel-Harvey Coastal Plain Catchment* make specific reference to DAFWA having a role in their implementation. For example, *State Planning Policy 2.1* makes specific reference to the role of DAFWA in providing advice or information to support consideration of development and rezoning applications for intensive agriculture and *State Planning Policy 2.5* recognises that DAFWA has the following responsibilities in assisting with the implementation of the policy:

- Where there is a need to assess an agricultural area for its State or regional significance, DAFWA may initiate a process with the relevant government

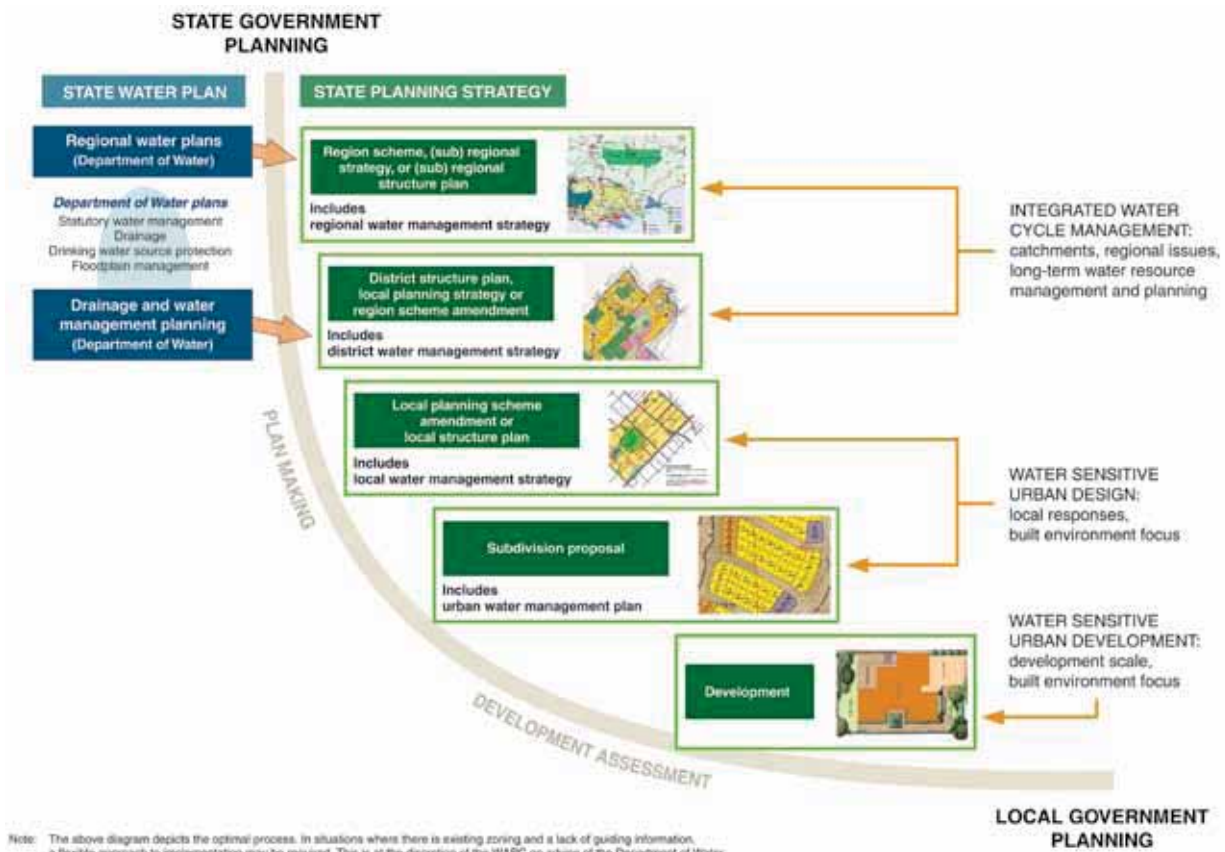


Figure 5: Better Urban Water Management Framework

agencies, the local government, other stakeholders and the community to identify such an area.

- When reviewing or preparing a local planning strategy and town planning scheme, a local government may request DAFWA to assist in the identification of these areas.
- Agricultural priority management areas identified in the state planning policy will be the subject of further investigation and refinement by DAFWA, the DEC, local government and stakeholders to identify agricultural areas of State or regional significance that would require appropriate zoning in town planning schemes.
- DAFWA will make available land resource information and agricultural industry requirements to local government (particularly to small local governments

where additional assistance may be required), to assist with reviewing or preparing local planning strategies and town planning schemes and to identify areas of local significance and suitability for agriculture production for local planning purposes.

DAFWA's role is to encourage matching of land use with land capability, identify and protect areas of agricultural significance and make recommendations relating to land suitability for different agricultural land uses and stocking rates for grazing animals. DAFWA's link with land use planning relates to the provision of advice on these issues where planning decisions are considered to potentially threaten areas of agricultural significance and in the provision of assistance in the development of statewide policy (eg *State Planning Policy 2.5 Agricultural and Rural Land Use Planning*) and regional and local planning strategies. The department has a

centralised land use planning function, provided through a sustainable and agricultural land use planning position in Perth, which supports the regional offices in dealing with land use planning matters. Planning applications should be referred to the regional offices in the first instance.

DAFWA's preference is to provide support and advice on agricultural matters and mapping of priority agricultural areas through regional and local planning strategies, rather than commenting on scheme amendments, subdivisions and development applications. This position is not always consistent with state planning policy, as in the case of *State Planning Policy 2.1 Peel-Harvey Coastal Plain Catchment Policy*, which relies on DAFWA to provide mapping regarding priority agriculture areas and to comment on some subdivision and development applications regarding intensive agricultural proposals. This issue is further explored in appendix 7 which provides recommendations for modifications to state planning and development control policies.

While an increased focus on input into the earlier stages of planning is supported, further discussion and agreement is required to determine the instances where it is necessary and appropriate for DAFWA to input into statutory planning proposals, particularly where such proposals may impact on regional and local areas of agricultural importance.

DAFWA is currently revising its priority agricultural land mapping, and will make mapping available through the shared land information platform. Mapping is most comprehensive in the South-West region with information available at a scale suitable for statewide and regional planning, which clearly identifies areas of agricultural significance. This will greatly reduce reliance on land capability mapping. Information and advice for identifying areas of agricultural significance in the central, Northern Agricultural and South Coast regions is not as comprehensive as what exists for the South-West.

In light of a number of issues, including DAFWA's preferred involvement in land use planning and the appropriate use of regional scale land capability information, the DOP is currently reviewing State Planning Policy 2.5. As part of the review of this policy it is suggested that guidance on the use of land capability assessment to support rural land use planning through local planning strategies be developed.

3.7 Department of Sustainability, Environment, Water, Population and Communities

SEWPAC is the Australian government department responsible for environment protection, biodiversity conservation, natural heritage, environmental research, and water policy and resources. SEWPAC was established on 14 September 2010 and was formerly known as the Department of Environment, Water, Heritage and the Arts (DEWHA). SEWPAC's link with land use planning in Western Australia primarily arises out of the administration of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), which is the Australian Government's central piece of environmental legislation. The Act provides for the protection and management of nationally and internationally important flora, fauna, ecological communities and heritage places, which are collectively defined as matters of national environmental significance, and establishes an environmental assessment and approvals process for actions that may impact on these matters. Further information on this Act can be found at <www.environment.gov.au/epbc/about/index.html>.

Under the EPBC Act, a person who proposes to take an action which will have, or is likely to have, a significant impact on a matter of national environmental significance is responsible for referring the action to the Commonwealth

Environmental Protection Minister for a decision as to whether an assessment is required. Information on the Australian Government's environmental assessment process is available from <www.environment.gov.au/epbc/assessments>.

Unlike the State environmental approvals process which has links with the *Planning and Development Act 2005*, the environmental assessment process under the EPBC Act is not tied to the planning process, rather to the action impacting on the matter of environmental significance. To avoid delays in the planning process, it is important that applicants are encouraged to refer any proposals which may impact on matters of national environmental significance as early in the process as possible. This provides for the opportunity of a dual assessment under the assessment bilateral agreement, which was entered by the Commonwealth and State Government on 8 August 2007 under section 45 of the *Environment Protection and Biodiversity Conservation Act 1999*. This agreement allows for the environmental impact assessment of an action to be undertaken by the EPA, on behalf of the Commonwealth, and once assessed, for an assessment report to be provided to the Commonwealth Environmental Protection Minister so that the minister can determine whether to approve or refuse the taking of the action for the purposes of the act. This means there is no need for a separate assessment process to be undertaken by the Commonwealth.

Also, Part 10 of the EPBC Act provides for strategic environmental assessments of planning instruments or policies, eg district structure plan, which once determined removes the need for resultant actions, as approved by the minister, to go through a separate approvals process.

The DoP has been involved in negotiations between the Commonwealth and Western Australian Governments to develop a strategic approach for the assessment of current and future development areas under the EPBC Act. The strategic approach comprises a focus

on the Carnaby's Black-Cockatoo with interim agreements for State approved developments, a joint strategic approach to future rezonings with national environmental impacts and a longer term agreement to provide for adequate habitat.

3.8 Regional NRM groups

As outlined in section 2.1 the NRM regions were formed in response to a shift in the program delivery of NRM in Australia to a regional delivery model for the implementation of the National Action Plan for Salinity and Water Quality and the second phase of the Natural Heritage Trust. There are six regional groups in Western Australia working with all tiers of government, regional organisations, industry, landowners, researchers and environmental community groups. The regional groups and their constituent local governments are listed in appendix 6.

As a component of the bilateral agreement between the State and Commonwealth governments, each of the regional groups was required to develop a regional strategy and investment plan that addressed significant NRM issues in their regions and incorporated the environmental, social, and economic aspects of NRM. These six strategies, released in 2005, which were accredited by the then State and Australian governments, cover the whole of Western Australia. These strategies identify in detail the value of the natural assets in a region, the extent and degree of threats against those assets, the resource condition targets to be achieved and their priorities, and the intervention required to achieve those targets.

The regional NRM groups have no statutory powers and have no direct influence over the planning process, therefore the links between the regional NRM bodies and land use planning was primarily dependent on the role land use planning had in achieving the targets and actions identified in the regional strategies. In 2008 the regional delivery program for NRM was replaced by Caring for our Country, with a shift

in focus towards the achievement of national priorities resulting in funding to the regions being substantially reduced and reducing the importance of the regional strategies in directing priorities for State and Commonwealth investment. Regardless of this, the NRM regional strategies provide an overview of the priorities and targets in each region and can provide direction on where land use planning can facilitate the achievement of NRM outcomes.

3.8.1 Review of regional NRM strategies

A review of the six regional NRM strategies was undertaken by EnviroPlanning to evaluate the effectiveness with which they acknowledge, guide, integrate and support the land use planning process in achieving NRM outcomes. Broadly speaking, recognition and understanding of how the land use planning system can be used to address NRM was greatest in the South-West and Perth (formerly Swan) NRM regions, which is understandable given the significant role land use planning plays in NRM in these regions due to growth pressures. The review identified those actions and targets that had relevance to land use planning and looked at the planning mechanisms that can be used to achieve the targets. A copy of the full report has been included in appendix 3.

In summary, the review recommended the NRM regional groups consider:

- In order to effectively understand how the planning system can support the achievement of NRM outcomes, prepare a summary of the planning documents affecting the region, their status and a brief explanation of how they can contribute to the resource condition targets, management action targets and actions of the NRM strategy.
- A review of the strategies should be undertaken to identify those NRM issues, targets and actions relevant to land use planning and those planning mechanisms

suitable for resolving the identified issues, targets and actions.

- In consultation with the DoP and local government, roles and responsibilities, resources required and feasibility and achievability of the management actions should be determined. It may be appropriate to formalise roles and responsibilities and allocation of resources of agreed actions through memoranda of understanding or similar.
- Land use planning related resource condition and management actions should be reviewed to ensure they are unambiguous and measurable.
- The limits of the land use planning system in addressing NRM issues, particularly in relation to broadacre farming or pastoral operations needs to be recognised.

NRM regional groups have the potential to further actions and targets relevant to land use planning that were identified in the NRM regional strategies, through assisting the collection of environmental information to support planning decisions and assisting the management of environmental assets retained or protected through planning processes.

3.9 Swan River Trust

The Swan River Trust was established in 1989 and is responsible for protecting and managing the Swan and Canning river system. The trust operates under the *Swan and Canning Rivers Management Act 2006*, which replaced the *Swan River Trust Act 1988*, and is responsible for:

- the management and protection of the river system;
- working with State and local government to provide facilities around the rivers;
- advising the Minister for the Environment on development proposals in the trust development control area;

- controlling and preventing pollution of the rivers;
- providing advice on the control of erosion of riverbanks;
- providing advice to local governments and the WAPC on town planning issues affecting the rivers;
- promoting community awareness of issues affecting the health of the river system and increasing community involvement in river protection and restoration.

The Swan River Trust has a role in land use planning in those areas in and around the Swan Canning riverpark, through involvement in statutory processes as prescribed under the *Swan and Canning Management Act 2006* and the Metropolitan Region Scheme, and through involvement in strategic planning as identified in *State Planning Policy 2.10 Swan Canning River System*. With respect to land use decision-making, the Swan River Trust seeks to ensure that the social, environmental and aesthetic values of the riverpark are not compromised, and fosters strong partnerships to encourage appropriate planning and development in the trust's development control area. Further information on the role of the trust can be found at <www.swanrivertrust.wa.gov.au>.

3.10 Coordination of NRM agencies

Improved coordination between NRM agencies and planning agencies was identified by attendees at EnviroPlanning's regional forums as one of the key elements required to achieve more effective integration of NRM into land use planning. This requires clarification of roles and responsibilities, the development of partnerships between agencies, a whole-of-government approach to NRM in land use planning, and improved communication and networking between agencies.

3.10.1 Roles and responsibilities

Some confusion exists regarding agency roles and responsibilities for NRM, especially where it involves input into land use planning processes. The planning system recognises the importance of obtaining feedback from stakeholders on proposals so that the outcome achieves a balance between the objectives of sustainable planning. This requires agencies to participate in the feedback process in an appropriate way – providing comment on proposals that may impact on assets or issues that fall under their control, in a timely, specific and relevant fashion.

Effective engagement and involvement of State NRM agencies in supporting achievement of NRM outcomes through land use planning would be assisted by the state agencies, local governments and the regional NRM groups having a clear understanding of the relevant roles and responsibilities for NRM. Resources in the state agencies for the provision of advice and support for land use planning is often limited, and it is important that referrals are targeted to the correct agency and that referrals are limited to those where specific advice is required.

Furthermore, through EnviroPlanning's regional forums DEC, DoW and DAFWA communicated a preference for resolving NRM related issues through providing support for strategic planning initiatives, such as preparation of state planning policies and regional and local planning strategies. Involvement at the earlier planning stages, as further discussed in chapter 4, is important for achieving effective integration of NRM into land use planning and makes more effective use of the limited resources available. It is important that roles, responsibilities and expectations associated with State NRM agency input and involvement in local and regional planning strategies are clearly defined and understood. Once clear roles and responsibilities are identified and documented it would be appropriate for these to be endorsed at a senior management level, perhaps through the Council of Natural Resource Agency Chief Executives. Following endorsement of roles and

responsibilities, key contacts for each agency should be identified and communicated to relevant stakeholders.

3.10.2 Partnerships

The development of partnership projects provides an opportunity for NRM regional groups to more efficiently and effectively engage and support State (particularly DoP), and local governments to address NRM land use planning issues. While there are some very good examples of partnership projects that assist the achievement of NRM outcomes through land use planning in peri-urban areas (eg Geraldton and Albany regional native vegetation survey projects), resources and effort of state agencies that could be directed to developing similar projects are often tied up in providing representation on the committees of regional NRM groups. Notwithstanding this, land use planning is a very important tool in achieving NRM outcomes in peri-urban and urban areas and therefore, more effective and efficient engagement of DoP and local governments is required.

3.10.3 Whole-of-government approach to regional planning

The directions paper recognises that regional planning provides the most appropriate scale for considering the natural extent and significance of environmental assets across a number of local governments, and that the early integration of NRM into land use planning provides the greatest opportunity for achieving NRM outcomes (chapter 4). The commitment and support of state NRM agencies in the preparation and implementation of regional planning tools is vital in ensuring NRM is adequately addressed in the direction set. This can be difficult to achieve due to the differing resource management missions and objectives of each agency, along with the different regional administrative boundaries that each agency operates under. It is therefore important from a land use planning perspective that DoP effectively communicates to the key NRM

agencies where there is an immediate and likely future demand for regional NRM information to support strategic planning at regional and local levels.

3.10.4 Communication and networking

Apart from the Government Officers Technical Advisory Group operating in the South Coast region, the Integrated Land and Water Planning Group in the metropolitan region, and the Planning Land Use Managers Group in south-east Avon, there are currently very few formal or informal networking opportunities for NRM and planning professionals in State and local government. It was suggested by a number of participants at the peri-urban workshop and regional forums delivered by EnviroPlanning, that similar workshops and forums be held in the future on a regular basis.

Recommendations and actions:

7. *Improve state agency engagement in land use planning:*
 - a) *Prepare an agreement with relevant state NRM agencies that defines the roles and responsibilities of state NRM agencies at different stages of the planning process, (eg strategies, schemes, amendments, subdivisions).*
 - b) *Prepare and maintain a list of key agency contacts to correspond with the relevant roles and responsibilities for NRM through land use planning.*
 - c) *Encourage DEC and the Office of the EPA to promote and allocate resources for the implementation of EPA Guidance Statement No. 33.*
8. *Raise the awareness of state NRM agencies, the Department of Sustainability, Environment, Water, Population and Communities (SEWPAC), local governments, regional NRM groups and DoP staff, of the integration of NRM into land use planning.*

4 Integrating NRM into land use planning

Opportunities for integrating NRM into land use planning exist at all levels of the planning hierarchy – State, regional and local – through both strategic and statutory planning processes. This chapter will provide an overview of the opportunities available, including an analysis of the State policy framework and the direction provided in the Western Australian planning system for integrating NRM considerations into land use planning.

The *Planning and Development Act 2005* establishes the WAPC as the statutory planning authority responsible for land use planning and development matters throughout the State. The functions of the WAPC under the Act include the preparation of, and the keeping under review, a state planning strategy, state planning policies and region planning schemes in order to coordinate land use planning and development throughout the State in a sustainable manner. Planning undertaken at the State and regional levels provides the context for land use planning at the local level, therefore ensuring adequate direction is provided for the consideration of NRM at these levels, is vital to the achievement of NRM outcomes at the local level. Sections 4.1-4.3 provide an overview and analysis of the level of direction set at the State and regional levels for the consideration of NRM in land use planning and the opportunities available under this framework to achieve positive outcomes through coordinated effort in identifying and addressing key natural resources priorities in planning.

Sections 4.4 - 4.7 provide more detailed guidance on the opportunities available at the local level to integrate NRM into land use planning, through local planning policies, strategies and schemes, and through the subdivision and development process. These sections provide an overview of the relevance of each of these planning tools for NRM, the

level of guidance currently provided in the *State Planning Framework*, and the role NRM agencies can play in supporting the integration of NRM into land use planning. While opportunities for integration are provided for each stage of the planning system, the consideration of NRM should begin as early in the process as possible, and be reflected in the subsequent stages of planning through to implementation.

4.1 State Planning Strategy

The *State Planning Strategy* outlines key principles which underpin the State Planning Framework to guide planning for sustainable land use and development. Five key principles are identified in the areas of environment, community, economy, infrastructure and regional development. The environmental principle in the *State Planning Strategy* is:

To protect and enhance the key natural and cultural assets of the State and deliver to all West Australians a high quality of life which is based on environmentally sustainable principles.

The *State Planning Strategy* contains a number of strategies aimed at securing a high quality environment which include:

- increasingly use energy sources which have minimal impact on the environment;
- prevent further loss in biodiversity;
- ensure that air quality is protected;
- ensure that water resources are conserved and their quality protected;
- ensure that land and soil is safeguarded and that degradation does not occur;
- reduce consumption of materials and promote recycling;

- promote planning, management and protection of resources;
- protect landscape, open space and public access;
- enhance the quality of life for all Western Australians; and
- protect the State's cultural heritage.

The *State Planning Strategy* provides the basis for long-term State and regional land use planning to guide future planning decisions, with the strategies and actions identified in the plan designed to support the achievement of the five key principles.

While the *State Planning Strategy* provides a basis for the environment and natural resources being considered in the planning process, the strategy is over 10 years old and outdated as it was prepared in 1997 prior to the resource and population boom experienced in the State, and does not adequately address the growth occurring in the regions. Since the preparation of the strategy there has also been an increasing awareness of the need to consider climate change and coastal vulnerability in land use planning which is not currently addressed through the strategy.

A review of the *State Planning Strategy* is currently being undertaken by the DoP to provide a contemporary strategic basis for planning in the State. This presents a significant opportunity to ensure the strategy continues to acknowledge the protection and enhancement of the environment as a key principle in planning, and incorporates strategies and actions relevant to current environmental planning issues, including climate change and coastal vulnerability.

4.2 State Planning Framework

State Planning Policy 1 establishes a state planning framework for Western Australia bringing together existing State and regional

policies, strategies and guidelines in a central framework, and building upon the *State Planning Strategy* to provide a context for land use planning decision-making. The framework informs the WAPC, local government, and others involved in the planning process on those aspects of State level planning policy that are to be taken into account, and given effect to, in order to ensure integrated decision-making across all spheres of planning.

In order to determine the extent to which the current planning framework provides for the consideration of NRM in land-use planning decision-making, a review was undertaken as a component of the EnviroPlanning project. The review concentrated primarily on the state planning policies and development control policies and considered direction provided by strategic policies such as *Liveable Neighbourhoods*, and guidance documents supporting the implementation of the framework such as the *Planning Schemes Manual* (now the *Local Planning Manual*) and planning bulletins, in order to provide an overall picture of the guidance provided by the State. Regional planning strategies, while a component of the *State Planning Framework* were not included in the review and are further discussed in section 4.3.

4.2.1 State planning policies

State planning policies are prepared under part 3 of the *Planning and Development Act 2005*, and are directed towards broad general planning matters to facilitate the coordination of planning throughout the State by local governments. These policies can be made for any matter which may be the subject of a local planning scheme, and can be prepared to apply to either the whole State or for a specified portion of the State. Local government must have due regard to the state planning policies when preparing or amending local planning schemes and making decisions on planning matters.

As discussed above, *State Planning Policy 1* is the overarching state planning policy that

brings together State and regional policies and plans into a state planning framework. This policy outlines the key principles for sustainable land use and development, including principles relating to the environment, community, economy, infrastructure and regional development.

Under this policy are sector policies dealing with each of the key principles of the framework (numbered *State Planning Policy 2 - State Planning Policy 6*), supported by supplementary policies numbered as subsets of the sector policies.

State Planning Policy 2 Environment and Natural Resources Policy and its supplementary policies provides the key policy guidance on NRM issues and further establishes environmental matters as valid planning considerations.

The environment and natural resources policy defines the principles and considerations that represent good and responsible planning in terms of environment and natural resource issues. It has three primary objectives which are:

- to integrate environment and NRM with broader land use planning and decision-making;
- to protect, conserve and enhance the natural environment; and
- to promote and assist in the wise and sustainable use and management of natural resources.

The supplementary environmental policies cover a range of issues, including water resources, biodiversity, and protection of agricultural land (as well as soil and land quality), with many of these policies requiring implementation through the local planning strategy and scheme. These policy provisions are required to be considered in conjunction with the policy provisions provided by the remaining state planning policies, dealing with issues such as urban growth and settlement, economy and employment, transport and infrastructure and regional development.

The review of the *State Planning Framework*, included an examination of the suite of state planning policies to determine the relevance of each policy to NRM and the level of guidance provided for its implementation. Recommendations for enhancing the capacity to address NRM through the state planning policies have also been made. The outcomes of the review of the state planning policies have been included in appendix 7.

4.2.2 Development control policies

Development control policies are the WAPC's operational policies for dealing with the subdivision and development of land. It is important to note that the development control policies highlight the importance of ensuring that subdivision of land is properly planned for and addressed through local planning strategies and schemes. Subdivision is not generally supported where this has not occurred.

The development control policies address a wide range of issues ranging from the design and layout of local roads through to fire planning and subdivision of rural land. There are currently 24 development control policies with a number of these providing some guidance on addressing various NRM issues through land use planning.

As per the review of the state planning policies, a review was undertaken of each of the development control policies. The comments and recommendations relating to the relevance of these policies have been included in appendix 7.

4.2.3 Shortfalls of the State Planning Framework

The review of the *State Planning Framework*, with its particular focus on State policy, found a number of key limitations of the ability of the current framework to provide direction on the integration of NRM into land use planning. These include:

- the absence of an integrated framework for sustainable decision-making;
- the complexity of the framework;
- the extent of guidance provided for the application and implementation of State policy
- the currency of the framework in relation to contemporary NRM and planning principles at a global, national, state and regional level; and
- the perceived metro-centric nature of existing policies.

Each of these shortfalls is discussed in further detail below.

Absence of an integrated framework

State planning policies and development control policies cover a wide range of issues dealing with the key principles for development as outlined in the *State Planning Strategy*. There is a tendency for each policy to deal with singular issues (eg water resources, coastal planning, rural land use, industrial buffers), with little direction provided for resolving conflicts or trade-offs between the different policies.

In making a decision, a land use planner must consider each of the policies and make a determination based on consideration of all environmental, social and economic factors. This can be difficult where competing interests occur, such as in peri-urban areas where a diversity of land uses and environmental assets exist. The *State Planning Framework* would benefit from an overarching sustainability framework to provide guidance on how to reconcile conflicts and trade-offs and identify which policies take precedence over other policies. As it is the intended purpose of *State Planning Policy 1 State Planning Framework* is to unite existing state and regional policies, strategies and guidelines in a central framework that provides a context for decision-making on land use and development, it is recommended that this policy be updated to introduce the concept of sustainability as a means of achieving a balance

between the key considerations, trade-offs and contradictions between different policies.

Complexity of the framework

The number and complexity of issues covered by the *State Planning Framework* through numerous state planning policies and development control policies, together with the range of additional guidance provided by the WAPC such as through planning bulletins and guidelines, can make it difficult to retain a knowledge and understanding of every requirement under the framework.

Contributing to the complexity of the framework is the often overlapping role of state planning policies, development control policies and planning bulletins. State planning policies are currently a mixture of high level principles and operational guidance, which creates confusion as development control policies are meant to provide operational guidance for subdivision and development. Planning bulletins, which are released by the WAPC to canvass proposed policy changes or highlight information about WAPC and DoP practices on a variety of planning matters, have also contained direction that could be considered policy in their own right (eg planning for tourism, acid sulphate soils, farm forestry policy). There is a need to consider the formalisation of these policy directions into state planning policies or development control policies.

There are opportunities to reduce the complexity of the policy framework through the consolidation of existing policies to reduce overlap and duplication. For example, there are a number of policies that address the same NRM issue but for different geographic areas. Essentially, the policy guidance provided in such policies is the same and therefore there is potential to consolidate policy advice for such issues under one policy. A number of policies exist for the protection of water resources across the State, particularly in relation to public drinking water source areas (state planning policies 2.2, 2.3, 2.7 and 2.9 and Development Control Policy 6.3). There is potential to

consolidate all these policies under the Water Resources *State Planning Policy 2.9* and, where required, make mention of regional specific policy measures such as those for the Jandakot and Gnamara groundwater protection areas.

Extent of guidance for implementation

Currently the capacity of the *State Planning Framework* to provide clear policy direction for the consideration of NRM at the different stages of the planning process is varied. Appendix 10 provides an overview of the current policies that provide some policy direction for addressing 6 broad NRM issues at each stage of the planning and development approvals process.

While at first glance it may appear that the current policy framework provides adequate direction on how to address NRM throughout the stages of the planning process, often guidance on how to implement the policy direction provided is inadequate. Many state planning policies, for example, contain only a brief section on implementation, with limited guidance provided to facilitate the achievement of policy objectives and the translation of the policy measures into planning decision-making.

The review identified the following state planning policies that have specific relevance to NRM that would benefit from further guidance to support their implementation:

- *State Planning Policy 2.4 Basic Raw Materials*
- *State Planning Policy 2.5 Agricultural and Rural Land Use Planning*
- *State Planning Policy 2.9 Water Resources*
- *State Planning Policy 3.0 Urban Growth and Settlement*

It has been suggested that one mechanism available to support the implementation of policy is the development of additional implementation guidelines. Implementation guidelines can provide more detailed guidance on how policy measures can be achieved through each stage of the planning process, and may include

additional information sources, guidance on agency responsibilities and references to related legislation and policy. Once such document is the *Better Urban Water Management Framework* developed to assist in the achievement of objectives under *State Planning Policy 2.9 Water Resources*.

Care does need to be taken when considering the need for guidelines to support the implementation of policy. As discussed, the current *State Planning Framework* is complex and consists of a number of different layers. The addition of yet another layer to the framework, through the provision of detailed implementation guidelines for each policy, could further exasperate the problem. The preference is for state planning policies to be understandable and clearly implementable in the first instance, and for guidelines to only be used when addressing complex issues that require further guidance.

Guidance on settlement planning outside of the Perth metropolitan region at a State and regional level is mainly provided through *State Planning Policy 3 Urban Growth Management Strategy* together with the *State Planning Strategy*, regional and sub-region strategies and local planning strategies. *State Planning Policy 3* was developed to establish principles and considerations to assist planning for urban growth and settlement, but currently fails to provide adequate guidance on planning for settlements and establishing a settlement hierarchy. The consideration of settlement planning is an important element of planning for managing growth to minimise adverse impacts on natural resources. The issue of settlement planning, particularly in relation to rural-residential development is considered further in the peri-urban planning chapter (chapter 5).

Currency of the framework

Review and update of policies in the *State Planning Framework* is opportunistic rather than regular, and tends to be responsive to individual planning issues. As a result many policies in the *State Planning Framework* are

over 10 years old and are in need of an update to reflect contemporary thinking and remove outdated references to agencies and State and Commonwealth policy positions.

Climate change in particular is one emerging issue that has not been addressed well throughout the current planning framework. *State Planning Policy 2.6 State Coastal Policy* does acknowledge the need to take into consideration sea level rise in determining coastal setbacks, however, the issue of climate change is more wide reaching than impacts on the coast. The State Government has established an Office of Climate Change in the DEC in order to develop whole-of-government policy and strategy focusing on the economic, environmental and social impacts of climate change. There is a need to ensure that land use planning provides for the consideration of the impact of development on climate change, as well as the ability for planning to provide for adaptation to a changing climate, as whole-of-government responses to climate change are developed, and climate change trends and issues are identified,

A new separate policy dealing with climate change mitigation and adaptation measures is not proposed, rather it is recommended that an audit be undertaken of the *State Planning Framework* to identify how climate change measures are currently addressed with a view to consolidating and addressing gaps through integration of additional climate change mitigation and adaptation measures into existing policies.

The ability to reduce energy and water demand through land use planning has been recognised nationally by the Local Government and Planning Ministers Council which developed a set of national planning principles aligning with the Council of Australian Governments National Climate Change Adaptation Framework endorsed on the 13 April 2007. Recommendations are included in appendix 7 regarding the incorporation of these principles into current policy as a starting point for improving the ability of the State's policy

framework to provide guidance on climate change.

National planning principles for reducing energy and water demand through land use and infrastructure design

These principles were developed and agreed to by the Local Government and Planning Ministers Council in March 2007. These principles sought to minimise energy and water demand by ensuring:

- 1. an integrated approach to design that facilitates sustainable outcomes and accounts for whole-of-lifecycle processes;*
- 2. an urban spatial structure that reduces the need to travel, supports the use of public transport, cycling and walking, and promotes an energy and water efficient urban form;*
- 3. the optimal use of land and existing and future infrastructure assets;*
- 4. the sustainable use of land suitable for primary production;*
- 5. waste and stormwater is effectively managed and re-used;*
- 6. urban and building design is climatically appropriate; and*
- 7. urban and building design facilitates adaptation over time.*

(Local Government and Planning Ministers Council, 2008)

The use and relevance of land capability information to planning decision-making and the role that DAFWA has in supporting land use planning, is another issue where policy has not kept up to date with current practice. A number of policies refer to the need to consult with DAFWA on subdivision and development proposals (eg *State Planning Policy 2.1 Peel Harvey Coastal Plain Catchment Policy*) or to consider information on priority agricultural land which is not currently available (*State Planning Policy 2.5 Agricultural and Rural Land Use*).

This is not reflective of the current position of the department to only comment on those proposals affecting prime agricultural land and to concentrate efforts on supporting the development of policy and strategic planning exercises (section 3.6). There is a need to review policy to ensure responsibilities of agencies external to the planning process are kept up-to-date and relevant.

Specific comments and recommendations where inconsistencies have been identified are included in appendix 7.

Perceived metro-centric nature of existing policies

At the regional forums facilitated throughout the State by EnviroPlanning (appendix 2), various stakeholders (including local and State Government planners and NRM professionals) expressed concern over the tendency for State policy to provide guidance focusing on Perth metropolitan region. In an examination of the current policy framework, two policies relating to basic raw materials and native vegetation in particular were identified as lacking guidance outside of the Perth metropolitan region.

Currently specific state planning policies exist for the Perth metropolitan region for basic raw materials (*State Planning Policy 2.4 Basic Raw Materials*) and native vegetation (*State Planning Policy 2.8 Bushland Policy* for the Perth metropolitan region), but not for other areas of the State. While it is acknowledged that these were prepared in response to significant urban growth pressure affecting these assets in the metropolitan region, there is a need to extend these policies statewide as data and mapping becomes available. There is increasing pressure on these assets across the State, particularly in peri-urban areas where there is a demand for basic raw materials to support the development of urban areas, and pressure to subdivide and develop land containing native vegetation given its proximity to urban centres. The DoP is currently reviewing *State Planning Policy 2.4*

Basic Raw Materials to extend it statewide and is preparing a strategy to determine the adequacy of current and future supplies of basic raw materials to service demand in the south-west of Western Australia.

The perception that policy is largely metro-centric also arose out of a lack of regional variation provided for in those policies applying statewide, containing provisions more suited to metropolitan situations. Western Australia is a large state and concern was expressed by workshop participants that a 'one policy fits all' approach did not provide adequate flexibility to allow planning to be responsive to regional issues and circumstances. While this concern is acknowledged, in many cases the local planning strategy can be used to account for regional variations through the application of policy at the local level. For example, *Development Control Policy 3.4* allows for the creation of single conservation lots through subdivision, without rezoning, where lots can meet a number of criteria. The subdivision of multiple conservation lots is not consistent with the policy. Where a need has been identified for the provision of conservation lots this can be identified through the local planning strategy and land zoned accordingly. The perception that policy is largely metro-centric may be attributed more to a lack of implementation guidance on how policy should be applied rather than the lack of variation specifically provided in policy. Detailed comments on where additional guidance could be useful have been provided in appendix 7.

Recommendations and actions:

1. *Consider comments and recommendations of EnviroPlanning's review of the State Planning Framework when undertaking review and update of the State Planning Strategy, state planning policies and development control policies.*

4.3 Regional planning

Regional planning tools form the next tier in the planning hierarchy used to guide and coordinate government land use and infrastructure planning for those matters that can often only be planned for across areas greater than one local government. Regional planning provides the ability to interpret the *State Planning Strategy* and State policy at the regional level and provide further direction for local government to plan at the local level. The benefits of planning for all or part of a region, is the ability to plan beyond one local government boundary and consider the bigger picture. In setting a direction for future growth, infrastructure to accommodate the growth can be planned for, including the need for regional roads, community and service infrastructure and regional open space.

The *State Planning Strategy* recognises the need to provide a framework to anticipate and appropriately respond to pressures as they arise through the development of regional planning strategies and schemes.

Regional land use planning tools in Western Australia are prepared by the WAPC and include both strategic (regional and sub-regional planning strategies and structure plans) and statutory (region planning schemes) planning tools. The *Planning and Development Act 2005* provides the legislative basis for a regional planning framework and divides the State into 10 regions (including the metropolitan region). The Act provides for the development of region schemes for all or part of each region, and for the establishment of regional planning committees to coordinate planning in the regions.

The *Building a Better Planning System* document released by the WAPC in 2009 to guide planning reform in Western Australia, recognises the importance of regional planning as a means of focusing on regional development and issues and identifies the need to develop regional planning in high growth regions or regions of State importance. To facilitate this need, in December 2008, the WAPC resolved

to establish regional planning committees for the Kimberley, Pilbara, Gascoyne and Mid-West regions, which have been under pressure as a result of the resources boom. The role of the committees is to advise the WAPC on planning for all or part of the regions, and on the need for region planning schemes. The role of the committees is to advise the WAPC on planning for all or part of the regions, and on the need for region planning schemes. The *Building a Better Planning System* document was finalised into a blueprint for planning reform titled *Planning Makes it Happen* which reflects this discussion, anticipating the four committees would be operational by the end of 2009.

4.3.1 Regional land use planning tools

Regional planning strategies

Regional and sub-regional planning strategies provide the State with key land use and infrastructure planning tools to guide the future development of a region. They provide the opportunity to interpret the *State Planning Strategy* at the regional level and provide a basis for cooperative action to be taken by State and local government on land use and development. Regional planning strategies are non-statutory and serve as a guide for future development.

Owing to varying levels of planning capacity and expertise, differing state agency administrative boundaries, and the diversity of environmental, social, cultural, economic issues and size differences associated with regional and sub-regional areas in Western Australia, there is no standard model for regional planning strategies.

A number of regional and sub-regional strategies have been prepared and endorsed by the WAPC and are listed in State Planning Policy 1. Updates to this policy are required to ensure all regional strategies adopted by the commission have been listed.

At the regional forums facilitated by EnviroPlanning throughout the State, local government planners expressed concerns about the ability of existing regional strategies

to provide adequate guidance and direction for local level planning. These concerns centred around the lack of resources committed to the implementation of the strategies, the static nature of the documents and their lack of ability to be responsive to changes in circumstances (such as the resources boom).

The DoP, in response to greater recognition of the importance of regional planning, is undertaking a review into the role and format of regional planning strategies to make the strategies a more effective tool in directing the future development of the State.

Region planning schemes

As mentioned, the *Planning and Development Act 2005* provides for the preparation of region planning schemes to deal with matters of State or regional importance. Region planning schemes outline objectives for State and regional development and provide a statutory mechanism to assist strategic planning, coordinate the provision of major infrastructure and set aside areas for regional open space and other community purposes. Currently region planning schemes exist for the Perth metropolitan region, the Peel region and the Greater Bunbury region.

In general, region planning schemes define the future use of land in the scheme area by allocating land into broad land use zones (eg rural, urban, urban deferred, industrial) and reservations (eg regional open space, regional roads) through zoning maps and an associated scheme text that outlines the planning requirements for the zones and reserves.

Local planning schemes provide the detailed planning for the areas defined in the region scheme and are required to be consistent with any region scheme in accordance with part 9 of the *Planning and Development Act 2005*.

Regional structure plans

Regional and sub-regional structure plans are strategic plans that provide a broad framework

for planning at the regional scale to address planning issues, including limits to growth in urban areas, population trends, employment areas, major commercial centres, transport links, infrastructure and servicing requirements, environmental protection and regional open space. Current endorsed regional structure plans are listed in *State Planning Policy 1*.

4.3.2 Relevance to NRM

Planning and management of natural assets is often best undertaken at a scale that reflects their natural extent. For example, rivers are best planned at a catchment scale, and biodiversity through bioregions. Regional planning provides a significant opportunity to consider the natural extent and significance of environmental assets across a number of local governments, and provide direction for recognising and protecting those assets through land use planning.

Through the identification of key environmental assets and issues, strategic regional planning can begin to set up a framework in which guidance is provided as to how these issues should be considered in decision-making. This may include directing development away from environmentally sensitive areas or assets (eg locating urban zoned land in areas of low agricultural value), setting targets for the management or protection of assets in the region (eg no clearing is to occur for vegetation complexes where less than 10 per cent of the original extent remains), or through defining policy principles to guide future development (eg design, construction and ongoing management of development must demonstrate no impact on the environmental values of downstream wetlands and waterways).

The effectiveness of a regional strategy to achieve NRM outcomes often depends on the level of information available to support implementation, and the provision of adequate guidance as to how the policy measures can be achieved on the ground through decision-making. To assist the effectiveness of regional strategies to achieve NRM outcomes, the WAPC has sourced funding to prepare a

draft NRM plan for the Southern metropolitan and Peel sub-region (through the state NRM EnviroPlanning project) and NRM plans for the Pilbara, Kimberley, Gascoyne and Mid-West planning regions. Through the protection of natural resources in strategic regional land use plans and projects, it is important to ensure that if an NRM plan is prepared to assist regional planning, it should:

- map priority natural resources (including public drinking water supply areas, threatened species habitat, rivers and wetlands, remnant vegetation, basic raw materials, agricultural land, and significant landscapes) using information from existing datasets;
- evaluate current and future land use and development pressures, (including urban development, rural subdivision, mining, basic raw materials extraction, and regional infrastructure provision);
- develop responses (including collation of more detailed information) for managing priority natural resource areas that are under pressure from current and future land use and development; and
- establish policies, strategies and actions for implementation through statutory and strategic regional and local land use planning instruments (including schemes, strategies, and structure plans).

Planning at the regional scale also enables the consideration of the cumulative impacts of future development on the environmental assets in a region, and the sharing of responsibility of protection and management across a wider number of stakeholders. At an individual development scale, it is often difficult to determine the impact of an activity without consideration in the wider context, and unless the regional context is available, this responsibility may fall to the individual developer. This was the case in the South Coast region where the EPA had advised a reluctance to assess development proposals that could impact on potentially significant native vegetation, in the absence of information to

assess the vegetations significance in a regional context.

Region planning schemes, as a statutory tool, also provide an opportunity to consider and address NRM issues. These include:

- requirement to refer newly prepared schemes or amendments to the EPA for consideration for formal assessment;
- reservation of land for public purposes, including opportunities to acquire land containing regionally significant bushland or wetlands, although funds to do this in the Peel and Bunbury regions are limited relative to the Perth region;
- special control areas to identify and protect surface and groundwater catchments;
- environmental conditions for the region scheme as determined by the Minister for the Environment being inserted into the region scheme in a schedule of environmental conditions.

It is important to note that when land is zoned urban through a region scheme, the opportunity to achieve NRM outcomes such as protection of environmental assets (eg bushland and wetlands) can be limited and is often dependent on the level of assessment and advice provided by the EPA. For example, bushland protection in urban areas is generally restricted to public open space contributions, which is also required to provide for active recreation needs.

Land zoned urban deferred, which is land identified for future urban uses following the extension of urban services, the progressive development of adjacent urban areas, and resolution of any environmental and planning requirements relating to development, is also often highly constrained in terms of the NRM outcomes that can be achieved. The use of urban deferred zoning in circumstances where environmental issues that could significantly constrain the future development of the site still need to be resolved, is considered inappropriate as it creates the expectation that the land will

eventually be fully developed for urban uses. To guard against unrealistic development expectations it is considered more appropriate for land, where environmental issues have not been resolved, to remain rural zoned, rather than zoned urban deferred. From an NRM perspective it is preferred that urban deferment only be used to facilitate land assembly and stage future urban development once environmental constraints have been resolved.

4.3.3 Role of agencies

Collection of asset based NRM information (eg native vegetation, water, priority agricultural land etc) by state NRM agencies at a regional scale is vital for ensuring that both regional and local planning processes adequately consider NRM matters. This requires an integrated and coordinated approach to NRM by the state NRM agencies to ensure that this information is available. This can be difficult to achieve due to the differing resource management missions and objectives of each of the agencies, along with the different regional administrative boundaries that each agency operates under. It is therefore important from a land use planning perspective that the DoP effectively communicates to the key agencies where there is an immediate and likely future demand for regional NRM information to support strategic planning at regional and local levels. The recent structural review and realignment of the DoP's State and Regional Policy Division to form three planning directorates for the southern, central and northern planning regions, and the formation of regional planning committees in the Mid-West, Gascoyne, Kimberly and Pilbara regions, provides an opportunity for the DoP to provide direction to key NRM agencies on where information is required to support strategic planning at regional and local levels. Cross agency working groups and/or workshops would provide an effective means of communication between the DoP and other state agencies to ensure priority NRM assets and issues are considered in the regional context.

Commitment and support of state NRM agencies for the preparation and implementation

of regional planning strategies is vital in ensuring NRM is adequately considered through the direction provided by regional strategies for matters such as managing urban growth, facilitating appropriate rural-residential development, identifying priority agricultural land and significant environmental assets. A number of current regional strategies recommend actions to address information gaps or data requirements, which rely on implementation by agencies external to the department. Issues arise when these actions do not align with the priorities or funding capacity of the agencies responsible for implementation. Consequently, delays in the implementation of the strategies can occur and there is a tendency for collection of NRM information identified in regional planning strategies to be opportunistic and dependent on funding sourced external to state agencies. For example, the Geraldton Regional Flora and Vegetation survey was initiated through funding sourced through the EnviroPlanning project to address an information gap identified by comments made by the EPA on the Geraldton Region Plan.

Separate to the regional land use planning being undertaken across the State, there are a number of regional NRM initiatives that are, or have been, undertaken, that provide a regional context for the protection and management of the State's natural resources. These include initiatives such as:

- regional water plans, being prepared by the DoW;
- the South-West Australia Ecoregion Initiative, a systematic conservation planning project being coordinated by World Wildlife Fund in partnership with DEC and other agencies;
- regional NRM strategies prepared by the regional NRM groups which set targets and priority actions for the management of NRM in each region;
- Swan BioPlan, being undertaken by the DEC and the Office of the EPA which identifies regionally significant natural areas on the Swan Coastal Plain south of Perth metropolitan region;

- regional flora and vegetation surveys for Geraldton and Albany, partly funded by EnviroPlanning, which have mapped and described vegetation associations; and
- mapping and evaluation of wetlands in the Wheatbelt region, funded by the Avon Catchment Council with the support of the Australian and State Governments, resulting in a database becoming available showing the location and condition of over 20 000 wetlands.

The collection of information and the assignment of priorities for protection and management at this regional scale, provides a valuable resource for consideration in regional planning exercises and in providing guidance and direction for local level planning.

The Environmental Protection Agency

The EPA has a potential role in encouraging the consideration of environmental matters at a regional scale by facilitating a regional approach to undertaking informal strategic assessments under section 16 (e) of the *Environmental Protection Act 1986*. For example, the EPA recently provided strategic advice on the coastal strip between the Dawesville Cut and Binningup in recognition of the important environmental values and increasing expectations for development in this area. The WAPC contributed EnviroPlanning funding to technical studies to assist the Office of the EPA to identify environmental values along this stretch of coast. While resources for this type of assessment are limited, similar regional strategic assessments for areas having high development expectations and important environmental values should be considered. It is suggested that the memorandum of understanding proposed between the EPA and the WAPC could provide the framework for regular collaboration between the EPA and the WAPC to determine priorities for strategic environmental advice. Once these priorities are determined, resources will need to be sourced to develop and support delivery of projects (eg Dawesville to Binningup Environmental Planning Project, predominantly

funded through EnviroPlanning) which seek to address information and policy gaps identified through EPA/WAPC priorities for integrated environmental planning.

The EPA has been undertaking a review of the environmental impact assessment process, and in its report released in March 2009, identified that strategic environmental assessments have been under-used in Western Australia. The report also identified the advantages of conducting strategic environmental assessments as follows:

- *encourages a more regional approach to resource management and land use planning;*
- *alternatives and options are better considered early in the planning process;*
- *addresses cumulative impacts more readily than environmental impact assessment of individual projects;*
- *prerequisites for development are better known upfront;*
- *better design of developments;*
- *more certainty for subsequent projects or development through the upfront resolution of footprint issues; and*
- *streamlining of subsequent assessment processes for development proposals that are in accordance with the plan, policy or program under which the proposal is developed.*

In addition, region planning schemes and their amendments are referred by the WAPC to the EPA in accordance with the *Planning Development Act 2005* and assessed under section 48 of the *Environmental Protection Act 1986*. Currently, all region schemes and amendments are required to be referred to the EPA regardless of the level of potential impact on the environment the amendment may have. The underlying reasoning behind requiring the referral of schemes and amendments is to ensure the suitability of particular land for proposed uses prior to rezoning, so that it is not necessary for all subsequent development

and subdivision applications to be subject to environmental assessment.

Recommendations and actions:

7. *Improve State agency engagement in land use planning:*
 - e) *Assist the integration of NRM into regional and sub-regional planning strategies and structure plans, through the identification of priority natural resources and recommendations for protection and management.*
 - f) *Facilitate consultation between state NRM agencies and local governments in the absence of a contemporary regional strategy that identifies priority NRM issues and areas, in order to provide regional guidance for local level planning.*

4.4 Local planning strategies and schemes

Local planning strategies present one of the greatest opportunities for improving the integration of NRM into land use planning and decision-making. The local planning strategy is a strategic document that:

- sets out the long-term planning directions for the local government over a 10-15 year time frame;
- provides a mechanism for applying state and regional planning policies at the local level; and
- provides the rationale for proposed zones and other provisions of the scheme.

In 1999, amendments to the Town Planning and Development Regulations 1967 introduced the requirement for all councils in Western Australia to prepare a local planning strategy when substantially reviewing or preparing a new local planning scheme, replacing the previous requirement for a scheme report. A

local planning strategy is a valuable strategic planning tool that can guide decisions on development, subdivision and rezoning which promote sustainable development, by considering the social, economic and environmental needs of the local government area in a wider regional context. It places particular emphasis on appropriate use and development of land, and minimisation of potential land use conflict. Determinations under the subsequent scheme must also be consistent with the local planning strategy.

Local planning strategies are prepared by the local government, or consultants acting on their behalf, and are granted final endorsement by the WAPC. Procedures for the advertisement and adoption of local planning strategies are outlined in the Town Planning Regulations 1967 (as amended) available at <www.slp.wa.gov.au/legislation/statutes.nsf/main_mrtitle_2133_homepage.html>

The local planning scheme is the statutory implementation arm to the local planning strategy and is used to control land use and development in a locality. Under the *Planning and Development Act 2005*, local governments are responsible for the preparation and implementation of these schemes.

Local planning schemes are a statutory planning tool that classify areas for land use and include provisions to coordinate development in a locality. Put simply, a local planning scheme consists of scheme maps and associated text, with the maps identifying reserves and zones that apply to land use, and the text providing detailed provisions which apply to development of the land.

The process for preparing and amending a local planning scheme is set out in the *Planning and Development Act 2005* and includes a formal assessment by the EPA under section 48 of the *Environmental Protection Act 1986*, public consultation, consideration by the WAPC, approval by the Minister for Planning, and gazettal in the government gazette.

Under the Act, local governments are required to review their local planning schemes every five years, however, this does not always occur in practice with many town planning schemes being over 20 years old. In the meantime, a local government can amend their scheme through either a textual amendment or a change in the zoning of land subject to the proposal being consistent with the direction provided for in the local planning strategy. This process involves an initiation of a scheme amendment by the local government, assessment by the EPA under section 48 of the *Environmental Protection Act 1986*, a 42 day public advertising period, and approval by the Minister for Planning. The process involved with amending a scheme is described in the WAPC publication *An introduction to the Western Australia planning system*.

Together, the local planning strategy and the local planning scheme provide the means for controlling land use and development at the local level.

4.4.1 Current level of guidance

Currently, the WAPC provides formal guidance on the development and preparation of local planning strategies and schemes through the *Local Planning Manual* as well as through its suite of state planning policies.

The EPA also provides guidance on how to address environmental issues in broadscale planning (which includes local planning strategies and schemes) through Guidance Statement No. 33. A summary of the guidance provided by the EPA is given below.

In addition to the formal publications providing assistance to local governments in the preparation of local planning schemes and strategies, officers in the DoP that are responsible for the assessment of strategies and schemes, provide ongoing support to local governments. This includes advice on the process of preparing a local planning strategy, consultation methods, implications of state and

regional policy, and identification of key issues relevant to the local government area.

Local Planning Manual

The *Local Planning Manual* (which replaced the *Planning Schemes Manual* in March 2010), provides guidance for local governments on the preparation of local planning strategies and schemes. It incorporates an overview of the details of local planning strategies and schemes, and a guide to the *Model Scheme Text* (as prescribed by the Town Planning Amendment Regulations 1999). The review of the *Local Planning Manual* and the Town Planning Regulations 1967 and *Model Scheme Text* that is being undertaken by the WAPC is discussed here in further detail.

The *Model Scheme Text* was developed in order to promote greater consistency in the basic legal and administrative provisions of local planning schemes across local governments while allowing flexibility in the strategic and planning content of schemes. Local governments are required to follow the structure provided in the *Model Scheme Text* when preparing a new scheme. The guidelines associated with the *Model Scheme Text* provide explanatory information on how the scheme can be used to address the particular requirements of different local governments.

Currently, standard provisions relating to NRM matters are limited to the consideration of environmental conditions as set by the EPA following an assessment of a scheme or scheme amendment, definitions, and information requirements for planning approvals. This includes vegetation plans and any specialist environmental studies that may be required by the local government to consider an application.

As mentioned above, the *Model Scheme Text* was designed to standardise basic legal and administrative provisions while allowing flexibility in local planning schemes. The lack of NRM related standard provisions in the *Model Scheme Text* does not preclude local planning

schemes from addressing NRM, rather it provides the flexibility for each local government to tailor the scheme to their situation, allowing for the regional differences across the State.

There may be opportunity for NRM related provisions that are likely to be consistent across the State to be included in the *Model Scheme Text*, such as provisions relating to requirements for Water Sensitive Urban Design, however caution should be exercised in this approach to ensure the *Model Scheme Text* does not become too prescriptive to allow for regional variations and changes in best management practices.

The discussion paper on the review of the Town Planning Regulations 1967 and the *Model Scheme Text* is proposing changes to the way in which local government schemes operate, with those provisions which are standard across the State and are non-specific to particular local government areas to be combined into general scheme provisions, and those provisions specific to local planning issues remaining part of the local planning scheme text. The Model Scheme Text will therefore provide guidance only on those matters which may vary between local governments.

The *Local Planning Manual* also contains appendices that provide guidance on the suggested content of a local planning strategy, suggested zones and processes for preparing and amending provisions for local planning schemes.

Appendix 5.7 of the *Local Planning Manual* explains that guidelines and best practice examples will be prepared and distributed from time to time, to assist with the preparation of local planning strategies, schemes and amendments.

One of the recommended actions of this Directions Paper is to prepare case studies and practice notes to support local government integration of NRM into local planning strategies and schemes. Five case studies/ practice notes are being produced by EnviroPlanning through

the 2009/10 state NRM funding received by the WAPC. The draft set of guidelines for the integration of NRM into local planning strategies in appendix 8, forms the basis for one of the practice notes.

In addition to more detailed guidance on the preparation of local planning strategies, an education and awareness campaign on the role and significance of local planning strategies is recommended. This should apply to local governments, government agencies and consultants undertaking the preparation of local planning strategies on behalf of local governments, and include a component on how NRM matters are considered in the strategy preparation. The WAPC's publication *Planning Makes it Happen - a blueprint for planning reform* recognises the need for supporting the implementation of the Planning Schemes Manual with the WAPC and DoP proposing to formalise a process for a collaborative approach to the preparation of local planning strategies through a series of Strategy Q&A Forums held every six months.

State planning policies

In the *State Planning Framework*, state planning policies arguably provide the greatest direction on matters that should be considered and addressed in local planning strategies and schemes. Local planning strategies provide the opportunity to interpret these State policies in the local context and incorporate strategies and actions designed to implement these policies at the local level. Strategies and actions outlined in the local planning strategy can then be translated into statutory provisions under the local planning scheme.

As discussed in section 4.2, local government, through the regional forums held across the State, expressed some criticism of the state policy framework as it was considered difficult to apply the broad principles and objectives of many of the policies to the local level. The policies were said to provide insufficient guidance for their implementation, particularly in regard to regional variations. In addition, due

to the large number of state planning policies, the duplication of issues in the policies, and the complexity of the framework resulted in difficulty in balancing competing needs (eg environmental, economic and social needs).

The current guidance for the preparation of local planning strategies does not cross reference state planning policies in respect to issues required to be addressed by local planning strategies, and this would provide a useful one-stop-shop for local governments when preparing a local planning strategy.

EPA Guidance Statement No. 33

Outside of the guidance provided by the WAPC, further advice on the environmental matters of relevance to broadscale planning (regional planning, local planning strategies and schemes) has been provided by the EPA through Guidance Statement No. 33 *Environmental Guidance for Planning and Development*. Section A 1.4.1 of the document provides a suggested nine step framework to ensure environmental issues are appropriately considered at the broadscale planning stage.

The framework is based around:

- identifying all environmental factors, relevant policy and legislation;
- identifying environmental objectives, priorities and targets;
- considering the impacts of future land use changes, and
- identifying appropriate planning mechanisms to achieve environmental objectives.

The nine step framework is supported by the remainder of the guidance document which provides detailed issue-based guidance.

As discussed in section 3.3.3, the EPA Guidance Statement No. 33 provides a useful repository of information for land use planners, however, due to its comprehensive nature it can be difficult to ascertain what the key issues are that need to be addressed in the local planning strategy.

Through early consultation with the DEC, DoW and the EPA, key NRM issues relevant to particular locations can be identified, after which the guidance statement can be used to determine how these issues can be considered and addressed in the planning process.

Recommendations and actions:

3. *Support statutory planning processes to address NRM:*
 - a) *Develop Model Scheme Text provisions to address NRM issues where consistent across the State.*

4.4.2 Local planning strategy

As a strategic document, the local planning strategy has the potential to be an important tool for implementing NRM priorities, provided planning policy settings are clearly defined in relation to proposed land use and development to ensure they can deliver the NRM outcomes sought. As discussed, the local planning strategy provides the justification and rationale for the local planning scheme, which is the statutory implementation arm of the strategy. If NRM considerations are engrained in the local planning strategy, these considerations can be ultimately translated into statutory considerations, which in turn ensures NRM matters are considered in the decision-making process.

The local planning strategy can achieve NRM outcomes through:

1. Directing future development away from environmentally sensitive areas or natural resources requiring protection. The local planning strategy provides the long-term planning direction for a local government and provides the justification and rationale for any proposed zoning or provisions in the scheme. If significant NRM issues have been identified, one option is to ensure future development will not impact on the asset. For example, agricultural resources can be protected by limiting the expansion of rural-residential development to areas

adjacent to existing development and away from priority agricultural areas, thereby minimising land use conflict. Similarly, land largely covered by remnant vegetation or other major constraints (such as floodways and high bush fire risk areas) should be avoided for future urban expansion or inappropriate development.

2. Identifying significant environmental issues relevant to future decision-making and identifying actions required to address these issues. Actions may include means of implementing strategies through the planning scheme (eg introducing scheme provisions, new zones, special control areas, new policy), actions to address gaps in information/knowledge necessary to inform good decision-making, actions required to be undertaken prior to future development being considered, as well as actions relating to seeking funding, liaising with relevant agencies and monitoring and evaluation. Strategies and actions should be clear and useable and be justified through the background component of the strategy.

Although the format and content of local planning strategies vary between local governments, a local planning strategy will generally consist of three key components: a background report; a strategy and implementation section; and the spatial representation of the strategy.

In reviewing existing local planning strategies and strategies under development, a common finding was that while many local governments may achieve the protection of natural resources by default (through directing development away from sensitive areas), and provide a range of information relevant to NRM in the background report, there is little analysis of the planning implications of the NRM issues raised, and limited translation of these issues into the strategy component of the document. It is important that the issues raised in the background component are addressed in the strategy component as it is the strategies and actions from which future decision-making will be based.

Many local governments include an environment section in their strategy with appropriate actions related solely to a particular environmental issue. Few local governments demonstrated the integration of environmental considerations into overall decision-making.

4.4.3 Local planning scheme

As discussed in section 2.5.1, schedule 7 of the *Planning and Development Act 2005* outlines the matters which may be dealt with by a local planning scheme. These include:

- *the conservation of the natural environment of the scheme area, including the protection of natural resources, the preservation of trees, vegetation and other flora and fauna, and the maintenance of ecological process and genetic diversity; and*
- *the conservation of water.*

The Act establishes the consideration of the natural environment and natural resources as valid planning considerations in the scheme.

The primary purpose of a local planning scheme is to control development in the scheme area. In considering an application for planning approval under a scheme, the council is required to have due regard to all of the provisions in the scheme.

As a statutory tool, a local planning scheme provides the opportunity to implement the strategic direction outlined in the local planning strategy and can do this through a variety of mechanisms as further discussed and illustrated in figure 6. The suitability of each mechanism to address NRM issues can vary between issues and between local governments, and in some instances a combination of mechanisms will achieve the best result.

Reservation

Under a local planning scheme, land can be set aside and reserved for public purposes. In most cases, land is already in government ownership, and in some instances private land can be reserved for future acquisition.

Under a local planning scheme, reserves are designated for particular purposes which can include parks and recreation, conservation, drainage, civic and cultural, and waterways reserves. It is important that the designation of the reserve reflects the purposes for which the land is used, or is intended to be used and developed, as in determining an application for the development of a reserve, the local government has to have due regard to the ultimate purpose intended for that reserve.

Reservation of land can provide the greatest level of protection to an environmental asset under the scheme, provided the designation of the reserve matches the intended use. In addition to protection under the scheme, reservation of land results in title based protection, with land being under Crown ownership with a management order registered to the title, specifying the purpose for which the land may be used.

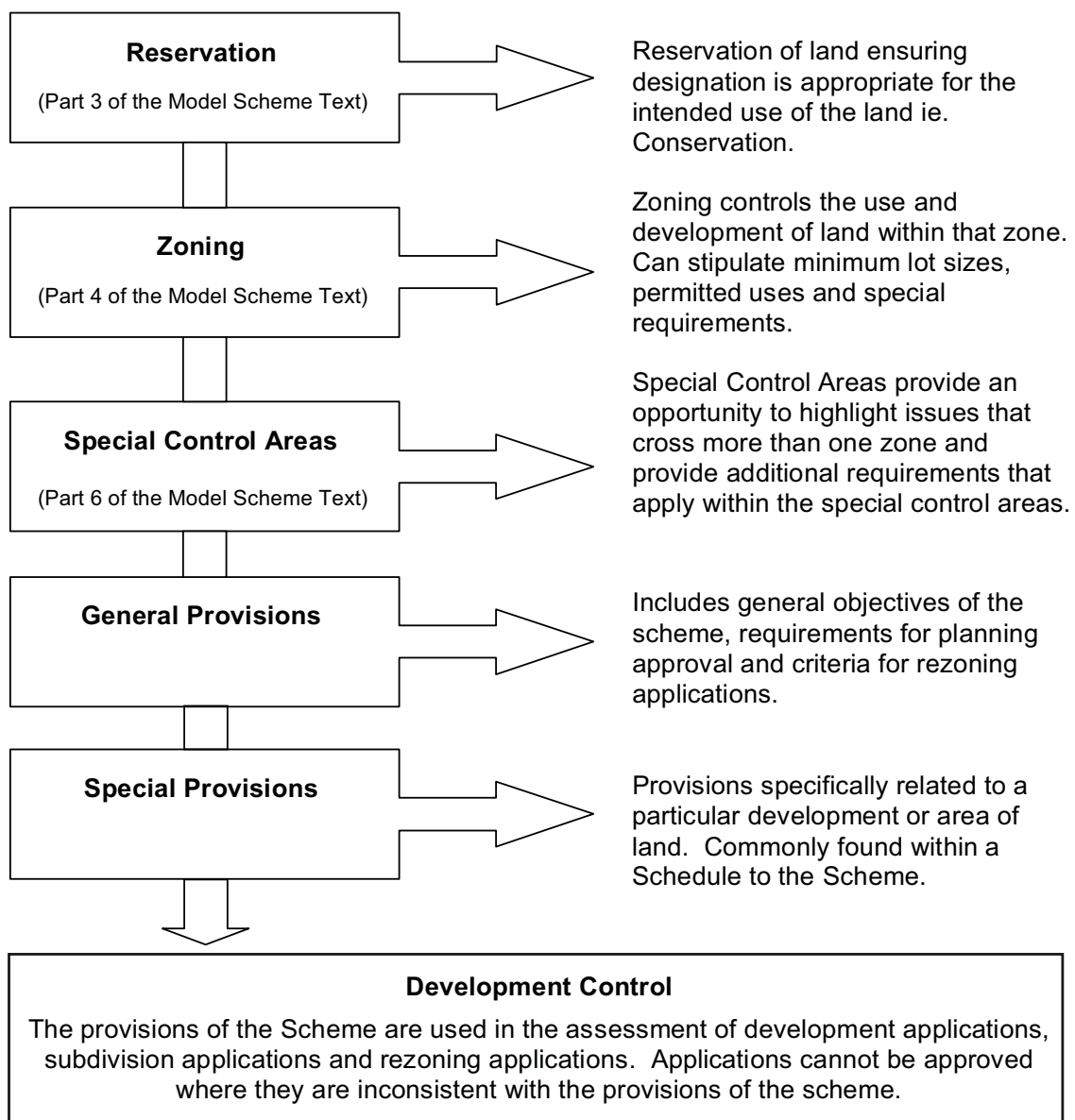


Figure 6 Local Planning Scheme Mechanisms

While a reserve status can provide the greatest level of protection to natural areas, the reservation of land beyond what is given up during the process of subdivision, it can be financially onerous on local governments due to compensation requirements under the *Planning and Development Act 2005*.

Zoning

Under a local planning scheme, land use zones are applied to all land in the scheme area. For each zone, an objective is set and provisions prepared setting out development requirements such as minimum lot sizes, the uses permitted in the zone and any special provisions relating to the zone. Essentially, zoning controls what land use can go where, and as such, can provide a valuable tool for achieving NRM outcomes.

In urban zonings, including residential, industrial and commercial zonings, opportunities to achieve NRM outcomes can be limited. Directing these zones away from sensitive environments, such as areas highly constrained by drainage issues, wetlands or significant vegetation, is a means of protecting natural resources.

In the preparation of a local planning strategy, modifications to zoning of land should be considered in the context of a range of factors, including environmental considerations, proximity to services, land capability, economic considerations and settlement hierarchy. The local planning strategy can also guide future expansions and may include criteria which must be addressed prior to initiation of a scheme amendment proposing a change in land zoning. For example, the Shire of Toodyay, in their local planning strategy, identified that new rural-residential zonings would only be considered where certain criteria could be met, including criteria relating to land capability and environmental protection. An extract of the shire's local planning strategy has been included below.

Shire of Toodyay – Local Planning Strategy Excerpt

Any scheme amendment to create rural residential (previously known as special rural) areas or the subdivision of land zoned rural residential under Local Planning Scheme No 4 will only be considered where compliance with the following criteria can be achieved:

- The preparation of a development plan which considers:
 - land capability with demonstrated fair to high capability of sustaining the proposed development and use;
 - impact on scenic landscape, conservation and heritage attributes;
 - risk of land and water degradation, with regard to flooding, soil erosion, salinity, landslip or any other form of environment;
 - the proposed lot layout and road configuration, having regard to the topography, vegetation and land form of the area;
 - the development plan is to consider the future subdivision of adjoining land areas and the Council may require that the development plan be expanded to consider adjoining properties that may not be the subject of a subdivision or rezoning proposal;
 - important natural resources and areas of environmental sensitivity;
 - fire risk assessment and management;
 - building envelopes;
 - provision of infrastructure; and
 - an impact assessment to consider possible conflicts between existing and future possible land uses.
- The land will not restrict or compromise future urban expansion, considering areas suitable for urban development in terms of their characteristics and proximity to urban services.

- The land can be appropriately serviced and will support the role of the Toodyay townsite as the district service centre.
- The future development of rural residential (previously known as special rural) land will not have a negative impact on surrounding or nearby productive rural uses.
- All created lots will be able to support development that does not conflict with the objectives of the Toodyay townsite landscape protection area and the road landscape protection buffers or result in development situated on critical skylines. This may include the use of building envelopes and may influence setback requirements and resultant lot sizes.
- The proposal must address the requirements contained in part 4 of the local planning strategy.

The council may resolve not to initiate a scheme amendment or may recommend refusal of a subdivision application to the WAPC if it considers that the above requirements have not been addressed or if the release of the land is not appropriate at that time.

Once land has been zoned, provisions specifically related to the use and development of the zone can assist in managing the potential impact of land use on natural resources. This can include requirements relating to the provision of building envelopes, setbacks to wetlands and watercourses, requirements regarding fire management, stocking rates and requirements for water-sensitive urban design.

Some local governments have used zoning as an opportunity for achieving NRM outcomes, such as the protection of vegetation, while still allowing for some form of development (ie the provision of lifestyle lots). When using zoning in this way it is important to ensure that the proposed provisions relating to the zone will result in the outcomes desired. For example,

in the past rural-residential development (1-4 hectare lots) has been seen as a mechanism to ensure protection of remnant vegetation (by allowing residential living in a bush environment with stronger controls on clearing), or as a means of ensuring improved land management practices (encouraging subdivision on land subject to land degradation and requiring stricter stock management control). Rural-residential developments can result in fragmentation of bushland through clearing of building envelopes, bush fire control (provision of firebreaks and reduction of flammable material), fencing and inappropriate stock management. The lot sizes created as a result of conventional rural-residential developments are insufficient to achieve good conservation outcomes.

The introduction of conservation themed zones, as an alternative means of encouraging private land conservation, has recently occurred across a number of local governments. Development Control Policy 3.4 currently allows for the excision of a single conservation lot from a rural lot, in order to preserve significant environmental features and remnant vegetation subject to the satisfaction of a number of criteria. The creation of multiple conservation lots requires a zoning change.

The intent of introducing a conservation themed zone relates to the provision of subdivision incentives to landowners with lots containing significant natural features, in return for a greater level of protection and management of the natural feature. The Shire of Northampton is one such council considering the introduction of a conservation themed zone into their local planning scheme to achieve conservation outcomes. In determining whether such a zone is appropriate it is important to ensure that the provisions relating to the zone will achieve the outcomes sought.

**Shire of Northampton
Local Planning Strategy
– Rural Conservation Zone**



The Shire of Northampton, when preparing their local planning strategy, identified a need to provide private conservation incentives

to protect large tracks of remnant vegetation on private land.

The strategy proposed the creation of a rural conservation zone to:

- promote a positive conservation outcome while minimising the impact on government and community services;
- seek the protection and long-term management of native vegetation outside the existing conservation reserves; and
- minimise further fragmentation of the native vegetation and, where possible, promote ecological linkages where clearing has resulted in the current fragmentation of the remaining native vegetation in the shire.

In establishing the circumstances where a rural conservation zone may be considered, wider sustainability issues of increasing the population in rural areas, and the potential demand this may have on government and community services, were required to be taken into consideration.

The proposed rural conservation zone will provide a subdivision incentive in return for placing greater restrictions on the use of the land and requiring the management of issues such as fire management, fencing, clearing controls, stock control and the ongoing management of the bushland.

It was recognised that green title subdivision, although having a role to play in contributing

to the protection of native vegetation, could potentially result in further fragmentation of existing bushland over well designed, innovative, cluster-style survey strata subdivisions. Incentives in the form of significant additional lot yield have been provided to those landowners who choose to create an innovative cluster-style subdivision that protects the remaining native vegetation as one entity (ie as one common lot).

An excerpt of the criteria established to identify areas in which rezoning of land to the rural conservation zone has occurred, has been included in appendix 9.

The new scheme currently being prepared will introduce the rural conservation zone, identify land uses consistent with the objective of the zone, and identify special provisions relating to the land.

Special control areas

Special control areas are a mechanism intended to deal with specific issues which may overlap zone and reserve boundaries. A special control area can place additional requirements on areas in the special control area, over and above the zoning of the land, to ensure land is developed consistent with the purpose of the special control. The *Local Planning Manual* describes the role of special control areas and outlines four key functions of this tool. Special control areas can:

- identify planning issues requiring special consideration (eg areas subject to flooding, water source protection areas, bush fire hazard areas, wetlands);
- control building and works in the special control area in response to particular issues (eg restricting building in floodways, specifying minimum finished floor levels for buildings in a flood fringe);
- set out guidelines on the special considerations to be taken into account in considering development in the special control area (eg prior to development

being considered, a fire management plan must be prepared in accordance with Development Control Policy 3.7 Planning for Bush Fire Protection); and

- identify relevant specialist agencies to be consulted prior to determining applications in the special control area (eg all applications for development in the floodway will be referred to the DoW for consideration).

Special control areas can provide an effective mechanism for those NRM issues that cross a number of different zones and allow for the identification of these issues via the scheme maps without the need to refer to individual documents or maps. It is important to clearly identify how the NRM issue will affect decision-making and ensure that special control areas are based on appropriate studies to verify the boundaries of the area to which the additional special control provisions are to apply. It would not be appropriate, for example, to include all remnant vegetation in a special control area with special requirements on the consideration of remnant vegetation in the development process. In this case it would be more appropriate to include such requirements in the general provisions of the scheme. Special control areas are most effective for those issues that occur over a discrete area and can be clearly defined.

City of Armadale - Public Drinking Water Source SCA



City of Armadale
- Public drinking
water source special
control area

In their local planning strategy, the City of Armadale recognised that the Wungong Reservoir, Churchman Brook Dam and Canning Dam water source protection plans were being prepared, and that there was a need to highlight the importance of the city's water resources through the introduction of a protection mechanism in the scheme.

The City of Armadale's Town Planning Scheme No. 4 achieves this through the inclusion of a special control area for public drinking water supply areas. The purpose of the special control area is to provide a basis for the protection of those resources through the control of land use or development, which has the potential to prejudice the quality of water supplies for public uses.

The special control area requires all development in the public drinking water source areas to have the prior approval of Council, including those land uses that would otherwise be permitted by Council without approval, and outlines those matters which will be considered in the decision-making process including:

- advice received by the DoW;
- the potential impact of the proposal on the quality of the water resource; and
- the ability to manage run-off and drainage.

The special control area clearly identifies those areas subject to the special provisions and highlights additional responsibilities for those in the catchment area.

General provisions

General provisions in the scheme which aid the consideration of NRM in the decision-making process can also be prepared and included in a local planning scheme. General provisions relate to the operation of the scheme and matters that apply to all development. This can include ensuring the objectives of the scheme contain an NRM related objective, requiring the submission of relevant data with applications for development and in structure plans, and detailing minimum criteria to be met prior to rezoning applications being considered.

The *Model Scheme Text* includes many of the standard general provisions to be included in local planning scheme. The Local Planning Manual provides guidance on which sections

may be modified or added to by the local government when preparing a scheme and provides an opportunity to improve or clarify the consideration of NRM in decision making.

Examples of general provisions are provided below.

Example 1 – General Provision relating to development within floodways

Notwithstanding any other provision of this scheme:

- (a) the Council shall not grant consent to the carrying out of any development on land that is shown on the scheme map as being in, or partly in, a floodway, unless it has made an assessment of:
 - (i) the effect of the proposed development on the efficiency and capacity of the floodway to carry and discharge floodwaters;*
 - (ii) the safety of the proposed development in time of flood; and*
 - (iii) whether the proposed development involves any possible risk to life, human safety, or private property in time of flood.**

Example 2 – Information to accompany a structure plan

Structure plans shall include any of the following matters that the Council considers appropriate in relation to the nature of the structure plan:

- (a) a site analysis assessment and key opportunities and constraints of the structure planning area, including landform, topography, hydrology, landscape, vegetation, soils, conservation and heritage values, main physical/natural features, ownership, land use, roads and public transport, and services; and*
- (b) environmental considerations;*

Special provisions

Compared with general provisions, which apply to all areas, special provisions relate to particular areas or developments in the scheme area. Most commonly these provisions arise through the rezoning process, where special provisions are proposed to manage specific issues related to the development, which may include environmental issues. Special provisions provide a useful tool for those areas with specific NRM issues that need to be factored into future decision-making on land use. An example is provided of special provisions relating to a rural-residential development situated in close proximity to Lake Clifton, a Ramsar listed wetland.

Example: City of Mandurah Town Planning Scheme No. 3

Appendix 4, Special Provision relating to a Rural Residential Development within close proximity to Lake Clifton.

Area 3

1. Council shall require all undeveloped rural residential lots which abut Lake Clifton and have already been created as 2 to 4 hectare lots to be developed so as to:

AMD 22 GG 4/2/05

- a) require the maximum possible setback from that boundary of the lot that fronts or abuts Lake Clifton to be achieved to bring development on these lots generally in line with the requirements of area 4;
- b) prohibit intensive agriculture on this land; and
- c) groundwater metered bores or wells will be permitted subject to first obtaining a groundwater well licence from the Water and Rivers Commission and any extraction will be limited by that authority.

The domestic water allocation for those properties within the Lake Clifton catchment area may be limited to 1500 kilolitres per lot per annum.

In the event that the Environmental Protection Authority (EPA) determines that the Lake Clifton environment has been or may be damaged by the use of groundwater bores, that Authority will call upon the Water and Rivers Commission to withdraw the bore licences until such time as it is determined by the EPA that continued use of bores in accordance with any conditions that may be imposed by the EPA, will not result in any damage to the environment.

4.4.4 Agency roles

The support of NRM agencies in the preparation of a local planning strategy is vital to the effective consideration of NRM matters in the future direction and development of a local government area. As the strategy is the precursor to the local planning scheme it is also important that the NRM agencies recognise the role of a local planning strategy in influencing future decision-making and in setting priorities for future growth.

Resources are often limited in local government, and it is important that effort is focused on those NRM issues of greatest priority in the local government area. This includes issues affecting those areas under development pressure, significant environmental values and assets in the local government area, as well as significant land management issues. The regional priority setting workshops discussed in section 4.3, present an opportunity for the NRM agencies to provide this strategic direction and identify key NRM issues required to be addressed by local governments in the preparation of their strategy. The role of the agencies in providing advice on individual local planning strategies would then be related to ensuring these issues are effectively integrated into the overall local planning strategy.

In the absence of regional strategic direction, the early engagement of the NRM agencies by the local government or its consultation, can greatly improve the integration of NRM into the development of the strategy. This will aid in the identification of NRM priorities, information sources and potential assistance that may be available to the local government.

The involvement of SEWPAC at the local planning strategy stage can ensure that protected matters relevant to the local government area under the *Environment Protection and Biodiversity Conservation Act 1999*, are considered appropriately in shaping the future growth and development of the area, in order to provide greater certainty to planners, the community and other stakeholders.

The role and level of input from other agencies such as DoW, DEC and DAFWA in the past has varied between local governments largely depending on the level of consultation undertaken by the local government in the preparation of the strategy.

In some instances the only opportunity for agencies to input into the process has been when the strategy is publicly advertised and distributed for comment in draft format. At this stage it can be difficult to integrate NRM considerations into the strategy effectively as the direction for future growth of the shire has been set, with a great deal of effort having already been put into the strategy. It can be difficult to significantly influence the direction of a strategy at this stage.

One of the main issues raised by the agencies is that the form in which requests for information regarding proposed local planning strategies are made, and the lead time given to provide the information, are insufficient which impacts on the level and quality of advice that can be provided.

Agency involvement in providing direction for, and commenting on, local planning strategies can also depend on the resources available in the state NRM agencies for strategic planning in the agencies themselves. DAFWA has placed

increasing emphasis on strategic planning and policy preparation while DoW and DEC have traditionally placed greater effort in statutory planning. This is changing however, with the recognition that strategic planning has the potential to significantly influence the integration of NRM into land use planning.

In providing comment on draft local planning strategies it is important that agencies comment not only on the background information in the strategy, but also on the implementation components of the document (the strategy and strategy map). In many cases, a lot of effort is placed on ensuring the background component of the document contains all the relevant information without ensuring NRM considerations are integrated into the objectives, strategies and actions. Comments provided are also often general in nature making the implications for planning difficult to identify. Currently, many agencies place emphasis on responding to statutory referrals with limited resources being available for input into strategic level planning. Education on the role of local planning strategies, and the subsequent local planning scheme, in setting the direction for future decision-making would assist in highlighting to agencies the importance of inputting into these stages of planning.

The NRM regional groups have had very minimal involvement in the development of local planning strategies to date. These strategies can provide an effective mechanism for achieving some of the targets under the NRM regional strategy. An increased investment (funding) into the preparation of local planning strategies by the groups would result in an improvement in the consideration of NRM in the decision-making framework. In addition, the NRM regions often have relevant data and information that can be accessed by the local government. The NRM regional strategies themselves provide a good resource for local governments of the NRM issues and priorities in a region and the regional groups are potentially a good source of data.

Department of Planning / Western Australian Planning Commission

Under the Town Planning Regulations, consent to advertise and the endorsement of local planning strategies by the WAPC is required. The DoP assists in this task by providing recommendations to the WAPC on the compliance of the local planning strategy with the requirements of the regulations.

The support of officers in DoP to local government during the preparation of local planning strategies prior to the above stages plays an important role in the quality of the final product referred to the WAPC for consent to advertise. This includes the provision of advice regarding the preferred process of preparing a local planning strategy, State and regional priorities for the local government area, advice on key issues and priorities required to be addressed, and assistance with mapping. This can assist in refining the scope of the local planning strategy and ensure that time and effort is placed on the key issues in the region rather than producing an overly comprehensive document that does not address the issues.

The Planning Schemes Manual provided limited guidance on the preparation of local planning strategies, which resulted in varying levels of involvement of the DoP in the preparation of a local planning strategy. In some instances strategies have been submitted for consent to advertise with no previous involvement from DoP officers. This can result in significant changes being required and delays in the assessment of the strategy due to the strategy not meeting requirements. The incorporation of a recommended process for developing a local planning strategy has been included in the Local Planning Manual and is considered an important step to improving quality of local planning strategies.

The Environmental Protection Authority

Under legislation, there is no formal requirement for a local planning strategy to be assessed by the EPA, yet a local planning scheme and

its amendments require assessment by the EPA under section 48 of the Environmental Protection Act 1986. As it is the local planning strategy that is providing the rationale and justification for the scheme, it is considered necessary to have some involvement of the Office of the EPA, in the preparation and/or endorsement of local planning strategies. EPA involvement at the local planning strategy stage would ensure that NRM matters are considered appropriately in shaping the future growth and development of the local government area, that there are no fatal flaws in the strategy, and that no significant environmental impacts will occur in the implementation of the strategy. Initial assessment of the strategy would also assist in streamlining the assessment of local planning schemes and amendments developed in accordance with a strategy addressing EPA advice, resulting in reduced time frames for assessment.

Recommendations and actions:

7. *Improve State agency engagement in land use planning:*
 - d) *Identify NRM data requirements to support development of local planning strategies.*
9. *Provide support to local governments to improve the integration of NRM into land use planning:*
 - a) *Prepare case studies and practice notes to support local government integration of NRM into local planning strategies, local planning schemes, local planning policies and local structure plans*

4.5 Local planning policies

Local planning policies provide additional guidelines to assist local governments in making decisions under the scheme. The Model Scheme Text includes standard scheme provisions relating to the ability for a local government to prepare a local planning policy in

respect to any matter related to the planning and development of the scheme area so as to apply:

- (a) generally or for a particular class or classes of matters; and
- (b) throughout the scheme area or in one or more parts of the scheme area.

Local planning policies should:

- be consistent with the local planning strategy and state policy;
- relate to a valid planning process and be based on planning principles;
- provide guidance in exercising or informing discretion under the scheme; and
- be concise and clearly explain the policy objectives and how it will influence decision-making under the scheme.

Local planning policies do not form part of the local planning scheme, and as such councils are not bound by the policies, but must have regard to the policy provisions and the objectives which the policy was designed to achieve when making decisions. Consistency with State and regional policy and consistency in applying the policy is essential to ensuring the requirements of a policy are upheld in the case of an appeal.

Local planning policies are prepared, adopted and implemented by the local government. Standard procedures for the making or amending of policies are contained in the Model Scheme Text and include:

- Resolution to prepare a local planning policy – the local planning policy is prepared by the local government, and a resolution passed to adopt the policy for the purposes of advertising.
- Public advertising – the policy is advertised for public comment over a minimum period of 21 days.
- Adoption of policy – following the advertising period, any submissions made are considered by Council. Council may

resolve to adopt the policy with or without modification, or resolve not to proceed with the policy.

Local planning policies are not required to be endorsed by the WAPC. Therefore, in determining planning and subdivision applications, the DoP and WAPC give greater consideration to local planning strategies and schemes, which are endorsed by the WAPC.

4.5.1 Relevance to NRM

As mentioned above, local planning policies afford an opportunity to provide a greater level of guidance on matters in the scheme to assist local governments in decision-making. This extends to those NRM requirements that are identified in the scheme.

Benefits of a preparing a local planning policy for an NRM related matter, include:

- the ability to provide a greater level of guidance on how NRM matters are to be considered in decision-making, providing greater guidance for decision-makers and certainty for proponents;
- the ability to interpret state policy at the local level; and

- greater flexibility in being able to amend requirements in line with changing/ contemporary practices due to the time frames for preparing and adopting a policy being significantly less than that associated with amending a local planning scheme.

Care needs to be given when preparing a policy to establish the NRM matter as a valid planning consideration through links to the local planning scheme and state policy. In addition, the policy requirements must be consistent with the scheme and state policy, because if any inconsistencies arise between the scheme and the policy, the scheme provisions will prevail.

In considering the use of a local planning policy to further achieve NRM outcomes, it is important to consider the resources available to prepare, implement and enforce requirements. This includes the ability and expertise to adequately assess information required to be submitted in accordance with a local planning policy.

As local planning policies provide another consideration to an already complex planning system, any policy created needs to ensure the policy objectives and requirements are clear, easily implementable, equitable and can be consistently applied.

Examples

Scheme Provision	Local Planning Policy
No dams or lakes shall be created except with the approval of Council.	<p><i>Dams Policy</i></p> <p>Provide guidance on the application and assessment requirements for the construction of dams to ensure;</p> <ul style="list-style-type: none"> - Environmental and landscape amenity of watercourses are maintained; - Construction does not lead to adverse environmental impacts; - Impacts of earthworks and the removal of riparian vegetation are minimised.
Unless the local government waives any particular requirement, every application for planning approval is to be accompanied by any specialist studies that local government may require the application to undertake in support of the application such as traffic, heritage, environmental, engineering or urban design studies.	<p><i>Water Sensitive Urban Design Policy</i></p> <p>Provide guidance on the application of Water Sensitive Urban Design principles, in accordance with the Better Urban Water Management Framework, when undertaking statutory and strategic planning.</p> <p>Provide guidance on agreed environmental quality criteria to be met through Water Sensitive Urban Design.</p> <p>Detail minimum information requirements to be submitted for different scales of development.</p>

4.5.2 Guidance available

There is currently little guidance available on the preparation of a local planning policy, beyond what is provided for in the Model Schemes Text guidelines. These guidelines describe the role of a local planning policy and its relationship to the local planning scheme. No detail is provided in these guidelines on how to deal with particular issues through a local planning policy, including NRM issues.

There are 141 local governments in Western Australia, with each local government having its own set of local planning policies, many of which include policies on NRM related matters. An opportunity exists to facilitate information sharing across local governments through the provision of a local government toolbox for NRM or similar, which could provide a resource for local governments looking to address NRM in their planning framework.

Recommendations and actions:

9. *Provide support to local governments to improve the integration of NRM into land use planning:*
 - a) *Prepare case studies and practice notes to support local government integration of NRM into local planning strategies, local planning schemes, local planning policies and local structure plans.*

4.6 Structure plans

A structure plan provides a framework for the coordinated provision of land use, development, infrastructure and allocation of services. Put simply, a structure plan identifies the proposed locations of distributor roads, commercial centres, public open spaces, schools and residential areas. In addition, a structure plan can govern lot sizes by allocating densities in the structure plan area. Structure planning can occur at the regional, district or local level and occurs for a number of different types of

Hints for policy preparation

When preparing a local planning policy for an NRM issue, the policy should;



1. Clearly establish the NRM matter as a valid planning consideration through links with the local planning scheme.
2. Ensure the objective related to the issue is clearly defined (this may include the provision of targets).
3. Ensure adequate guidance is provided on how the objective is to be achieved. This provides the detail of the policy and guides how the issue will be considered in decision making.

developments, including residential estates, industrial precincts, town centres and rural-residential developments. Essentially, a structure plan provides a guide for the future subdivision of land. Other terms commonly used for a structure plan include outline development plans, comprehensive development plans and subdivision guide plans.

Structure plans can be either developed under a requirement of a local planning scheme (statutory) or as a non-statutory plan which serves as a guide for future subdivision. This section will predominantly deal with the process of developing and endorsing district and local statutory plans. The principles for achieving NRM outcomes apply equally to non-statutory structure plans.

In general, a structure plan will comprise of three components: a spatial plan; statutory provisions; and a background technical report. The spatial plan is essentially a diagrammatic representation of the future planning for an area. The statutory provisions support the implementation of the structure plan and outline requirements to be met prior to and during subdivision. The

statutory provisions may either be annotated on the spatial plan, or be contained in the supporting documentation. The provisions have the same force and effect as if they were provisions of the scheme. For example, the statutory provisions may include a requirement for water-sensitive design principles to be applied, a fauna protection plan to be prepared prior to subdivision, and requirements to protect vegetation during construction as well as other non NRM conditions such as requirements for access, infrastructure contributions and design criteria.

The final component, the background report, provides all of the site investigations, planning background and justifications for the structure plan design and general guidance for future development. As with the local planning strategy, it is important that NRM considerations are translated from the background report into the spatial plan and statutory provisions, as it is these components that will guide future subdivision/decision-making and are matters for which conditions can be formulated and applied. The background report, while useful for providing the rationale for the design of the structure plan, is used only for guidance and is not enforceable in a statutory sense.

Scale

As mentioned, structure plans can be prepared at the regional, district and local scales, and

the level of detail displayed in the structure plan varies between scales. Figure 7 depicts the relationship between the various scales of structure plan. Essentially, as a structure plan moves from a district level down to a local level structure plan, an increasing level of detail is provided in order to guide future subdivision. This chapter will focus on structure plans prepared at the district and local scales.

District and large scale structure plans in general describe broad land use zones, identify major distributor roads and connections with adjoining developments, show natural features such as watercourses and remnant vegetation and locate future school sites, neighbourhood centres, and major areas of public open space. They may identify requirements to be considered in the more detailed stages of planning, such as the need to determine a coastal setback line, or the need for a spring flora survey to be undertaken prior to determining the final location of public open space.

The local level structure plan provides a greater level of detail and may include the allocation of proposed residential densities, depicting the proposed street network, proposed transport corridors, footpath networks and public transport routes, identifying the location of public open space areas, and identifying water-sensitive urban design requirements (ie drainage reserves and swales). The local structure plan guides the future subdivision of the land.

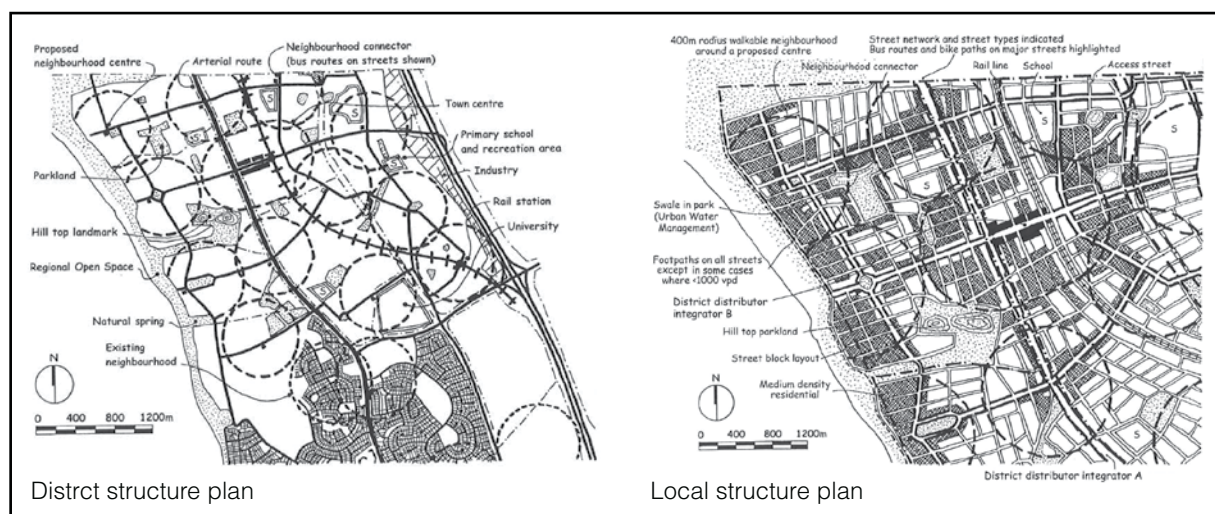


Figure 7: Examples of a district structure plan and a local structure plan

There is no uniform structure or content requirements for structure plans and plan requirements can vary between local governments. The DoP has been reviewing current issues with structure plans and is looking to clarify the level of content and detail needed for different scales of plan.

Procedures

The general process for developing and endorsing structure plans is described below.

- Preparation – a structure plan may be prepared either by the local government authority or by a proponent/landholder. In the preparation of a structure plan, consideration must be given to state policy, the local planning strategy and scheme and any relevant local planning policies. The process for preparing a structure plan requires consultation with servicing authorities and key agencies to determine minimum requirements for the structure plan area, and consideration of environmental, social, economic, infrastructure, transport and servicing factors. Where a structure plan has been prepared by a proponent, it is submitted to the local government for assessment.
- Adoption for advertising – once a structure plan has been received, the local government must determine whether the structure plan is adequate or whether modifications are required. When the structure plan has been prepared to the satisfaction of the local government, Council may adopt the structure plan for the purposes of advertising.
- Advertising – the structure plan is required to be advertised for a minimum of 21 days. This includes notification of all landowners affected by the proposal as well as relevant service agencies and government authorities.
- Endorsement by Council – on the close of advertising Council is required to consider all submissions made and make recommendations for the final

endorsement of the structure plan, with or without modification.

- Endorsement by WAPC – the plan is then referred to the WAPC for assessment and endorsement. Further modifications may be recommended/undertaken at this stage, in response to state policy requirements, environmental or planning considerations.

Once a structure plan has been endorsed, the statutory provisions of the structure plan have the effect of the scheme and apply to any subsequent subdivision or development proposals.

The WAPC in its review of the Town Planning Regulations 1967 and the Model Scheme Text, released a discussion paper in June 2009 regarding the structure planning process with a view to incorporating structure planning provisions in the Model Scheme Text. The discussion paper proposes a revised model process for the assessment and endorsement of structure plans in order to streamline the approvals process, remove the current dual approval process and establish a hierarchy of structure plans. Pending the finalisation of the review, procedures outlined in current local planning schemes will continue to have effect.

4.6.1 Level of guidance provided

Guidance on the preparation and endorsement of local planning strategies is currently provided in a number of different guidance documents as discussed below:

Liveable Neighbourhoods (October 2007)

Liveable Neighbourhoods is an operational policy adopted by the WAPC, used for the design and assessment of structure plans and the subdivision of new urban areas. The document has 12 principal aims which essentially seek to create liveable walkable neighbourhoods that foster a strong sense of community and maximises efficient use of urban land. One of the 12 aims is to ensure

the avoidance of key environmental areas and the incorporation of significant cultural and environmental features of a site into the design of an area. Liveable Neighbourhoods can be accessed from <http://www.planning.wa.gov.au/The+planning+system/Liveable+Neighbourhoods/default.aspx>

Liveable Neighbourhoods establishes eight key elements required to be considered in the preparation of a structure plan:

- community design
- movement network
- lot layout
- public parkland
- urban water management
- utilities
- activities centres
- employment and schools

Each element contains objectives and requirements to be achieved in a structure plan design.

The current structure of the document focuses on achievement of the design elements with a strong emphasis on the need to achieve a balance between the extensive spatial requirements of some environmental outcomes with efficient walkable mixed-use urbanism. The guidelines are restrictive in the ability to protect natural features in public open space, with only 2 per cent of the gross subdividable area able to be credited as public open space when used to protect natural areas and cultural features, urban water management measures and natural wetlands. This does not mean that the remaining 8 per cent cannot be vegetated, rather that the open space must be available for recreational purposes. Where additional areas are required to be protected, for example conservation category wetlands or threatened ecological communities, these may not be included in the public open space contribution and will be deducted from the gross subdivisible area from which the 10 per cent open space is calculated.

Element 5 of the document provides guidance on urban water management and aims to achieve greater sustainable development through:

- reducing the amount of water transported between catchments;
- optimising the use of rainwater that falls in urban areas;
- achieving appropriate water quality and quantity targets; and
- achieving sustainable urban structure and form.

Again, it is emphasised in the document that primary design considerations are to minimise development costs, and provide a compact walkable neighbourhood and town structure that is not severely dissected by environmental corridors demonstrating the need to balance economic, social and environmental factors in the structure plan design.

Liveable Neighbourhoods is the WAPC's preferred policy to guide structure planning and subdivision of land for developments of 20 lots or more. The WAPC will supersede specific development control policies over time with subsequent reviews of the document, ensuring reflection of contemporary principles and technological advances.

State planning policies

As discussed in section 4.2.1, state planning policies, prepared by the WAPC under part 3 of the *Planning and Development Act 2005*, provide direction on the matters to be considered in land use decision-making, which includes structure plans. While some of these policies provide specific guidance on how policy measures are to be implemented (eg *State Planning Policy 2.6*), many policies provide limited guidance regarding the outcomes that should be achieved at these levels (ie practical application of policy). It is possible that this guidance cannot be outlined in a document but rather portrayed as a case study

or process map. Many NRM policy provisions in state planning policies are broad statements to ensure, encourage and protect. These statements are often considered difficult to associate with an actual planning outcome and the ability of the planning system to achieve all the requirements in a practical sense has been questioned.

Development control policies

As discussed in section 4.2.2 development control policies are the WAPC's operational policies for dealing with the subdivision and development of land. Guidance is provided on a number of issues relevant to structure plan design, including residential road planning, public open space, school sites and bicycle planning. Apart from Development Control Policy 2.3 Public Open Space, no guidance is provided on how to specifically address NRM in structure planning and subdivision, although the policies do aim to promote walkable catchments and use of public transport as well as provide guidance on planning for fire protection and subdivision design. Development Control Policy 2.3 provides the basis for requiring a minimum of 10 per cent public open space to fulfil both active and passive recreation needs. It includes a policy objective *'to protect and conserve the margins of wetlands, water-courses and the foreshore adjacent to residential development'* and provides guidance on how public open space is to be calculated, requiring the provision of foreshore reserves to be ceded free of cost as a condition of subdivision.

Additional guidance on the implementation of the development control policies is provided in *Guidelines for the preparation of local structure plans for urban release areas*, released by the WAPC in 1992. These guidelines provide direction on the process for developing a local structure plan as well as on their form and content.

Better Urban Water Management Framework

The *Better Urban Water Management Framework* provides guidance on the level of information required to support structure planning from a water planning perspective. The level of investigations varies according to the scale of the structure plan. At the local structure plan level it is expected that the proponent will demonstrate how the proposed urban structure will address water use and management. If structure planning is occurring prior to rezoning, or as part of the rezoning process, the proponent will also be required to demonstrate that the area is able to support the proposed land uses. Detailed guidance on how to address this issue and water management issues at each stage in the planning process is contained in the framework.

Proposed structure plan guidelines

The discussion paper released regarding structure plans as part of the review of the Town Planning Regulations 1967 and the Model Scheme Text, proposes the development of comprehensive structure plan preparation guidelines. The proposed guidelines are intended to provide further guidance on the form and content of structure plans and establish a hierarchy of structure plans.

4.6.2 Opportunities for integrating NRM

Structure planning is the stage in the planning process where previous strategic direction can begin to be implemented through on ground design and the application of statutory protection measures. Where there is a known environmental asset, or NRM outcome (eg water-sensitive urban design, land use reflective of land capability, wetlands and waterways) a structure plan can be used to identify and achieve these outcomes in the context of sustainable development. For example, a structure plan can:

- seek to achieve solar orientation of lots;
- ensure significant environmental assets are protected in public open space and/or private property (eg through allocation of building envelopes and building setback lines);
- designate densities appropriate to landform;
- encourage use of public transport and walkability through appropriate design;
- ensure infrastructure requirements for water-sensitive urban design can be accommodated in the design;
- provide for water conservation measures to be implemented;
- retain important visual landscapes and landscape features; and
- protect wetlands and waterways ensuring adequate buffers to urban development are provided.

In some instances additional on-ground investigations and survey work may be required as a component of the structure plan development to determine the significant environmental values to be protected.

As mentioned, local structure plans consist of three components, the background report, the spatial plan and the statutory provisions. The structure plan represents a guide for future subdivision and the statutory provisions have the same affect as provisions in the scheme. As such, it is essential that requirements to be met at the subdivision stage are incorporated into the statutory provisions or annotated on the spatial plan. Statutory provisions can be included for requirements such as the need to ensure water-sensitive urban design principles are adhered to, and that solar orientation is considered in lot design.

Example 1 - Statutory provisions to ensure public open space results in the protection of significant vegetation in a district level structure plan

A minimum of 10 per cent of the gross subdivisible area is to be set aside as public open space in accordance with WAPC policy and should achieve the following:

- Set aside 9 hectares for conservation purposes in the site. The conserved open space/s should either form an extension to the Bush Forever site and/or be a minimum of 4 hectares and regularly configured with a low edge to area ratio, subject to area and viability issues being confirmed through the preparation of a vegetation management plan.
- A maximum of 6 hectares for district open space co-located with the westernmost high school and primary school in the location depicted on the structure plan.
- Locate the north-south mixed use open space/vegetation corridor as generally depicted on the structure plan.
- Provide a practical balance between the protection of local vegetation, community requirements and provision of active and passive parkland.
- Provide a range of passive 'pocket parks' with a high amenity focus.
- Provide good connectivity to and through the open spaces and ensure most residents are no more than 450 metres from an open space.
- Integration of drainage into multiple-use open space corridors to promote best practice water-sensitive urban design. This does not preclude the use of basins where appropriate.

Example 2 - Local structure plan provision relating to Better Urban Water Management

Finalise the preparation and implementation of an urban water management plan consistent with *Better Urban Water Management Framework* to incorporate best practice urban water management techniques, including, where appropriate, stormwater harvesting, wastewater treatment and re-use (including third pipe technologies), water demand management, (including landscaping, public open space, nutrient management) and overall water quality management.

The spatial plan associated with a structure plan provides a diagrammatic representation of how the land will be developed. Natural features requiring protection, such as foreshore reserves, Environmental Protection Policy and conservation category wetlands, and vegetation protected under legislation (such as declared rare flora and threatened ecological communities) are identified as reserves and removed from the subdividable area.

The structure plan then identifies how the remaining area of land will be developed. Beyond those areas required to be protected under policy and legislation, opportunities to achieve NRM outcomes, once land has been zoned for development, particularly urban development, without consideration of key NRM factors in previous stages of planning, are limited. This is due to the assessment of structure plans being governed by statutory requirements.

For example, 10 per cent of the subdivisible area is required to be given up free of cost as public open space for both the active and passive recreational needs of the community. Liveable Neighbourhoods contains criteria on how this public open space should be used, including limiting the protection of natural features and drainage requirements to 2 per cent, with the remaining 8 per cent being made available for recreational needs. This can limit the amount

of locally significant remnant vegetation and natural features that can be protected in zoned land. It is therefore important that strategic level guidance has been provided to identify what the important assets are to be protected, and that an appropriate head of power has been established in the local planning scheme to enable consideration of NRM matters in decision-making.

There are opportunities to build on these minimum requirements through negotiation with the landowner or developer and the use of incentives such as density bonuses, offsets and distribution of lot yields, provided that outcomes are consistent with state policy. These negotiations should involve all parties, including the developer, local government and the WAPC as the final approval body.

Examples include:

- Retaining the permitted lot yield but increasing the density of development to allow greater areas to be retained for conservation purposes (ie reducing the development footprint).
- Providing bonuses for improved NRM outcomes, such as public open space concessions, additional height bonuses or residential density bonuses in return for increased vegetation retention, improved solar rating of buildings or provision of wetland buffers.

It is important that a strategic basis has been provided in determining NRM outcomes for structure plans and that sufficient information is available on which to base these negotiations. For example, a local biodiversity strategy can provide the strategic context for determining which areas of remnant vegetation are priorities for retention (See Part 2 for more information).

Enquiry-by-design workshops

One method for facilitating positive outcomes, through bringing together major stakeholders in designing a structure plan, is the enquiry-by-design process. This process is designed to

facilitate a workshop in which options to address specific issues can be discussed, and possible design and planning solutions developed to form a preferred structure plan design. This process is generally used for structure plan areas that have multiple or conflicting issues and for more contentious developments.

Enquiry-by-design workshops are typically non-binding and provide an opportunity to consider and debate a wide range of options while taking into consideration all factors, including environmental, traffic, engineering, landscape, design and drainage requirements.

The Shire of Serpentine Jarrahdale has used this process in the development of the Mundijong Whitby Structure Plan. The process has sought to identify issues, requirements, opportunities and constraints in the study area for a number of key components, including the environment, infrastructure and services, traffic and transport, urban water management, and community facilities and services. EnviroPlanning, through its Local Government Partnership Program, has partially funded the environmental study component which seeks to identify key environmental issues in the study area, highlight the implications of these issues for the future development of the area, and identify potential planning mechanisms to ensure NRM is integrated into the final design.

An enquiry-by-design workshop will be held to enable all outcomes of each of the key components to be considered concurrently, and design options to be explored.

4.6.3 Role of agencies

As it is the structure plan that guides future subdivisions it is important that all NRM issues are identified and addressed at the structure planning stage. While it may be appropriate for some issues to be dealt with via a condition on the subdivision approval (for example, the need to prepare and implement a foreshore management plan), any NRM issue that may affect implementation of the future subdivision (such as the implementation of water-sensitive

urban, vegetation surveys or determination of wetland boundaries), should occur at the structure plan stage. If a subdivision application is submitted in accordance with an approved structure plan, it is very difficult to introduce new NRM considerations which may affect the subdivision design.

As previously mentioned, the endorsement of structure plans involves a public consultation period which includes consultation with state NRM agencies. This provides an opportunity for the agencies to comment on how the structure plan addresses NRM issues. Referral to the EPA is only required where the proposed development is not considered to be consistent with an assessed scheme.

Recommendations and actions:

9. *Provide support to local governments to improve the integration of NRM into land use planning:*
 - a) *Prepare case studies and practice notes to support local government integration of NRM into local planning strategies, local planning schemes, local planning policies and local structure plans.*

4.7 Subdivision and development

The subdivision and development of land are the last stages of the planning approvals process. Subdivision and development of land can only occur once land has been appropriately zoned, where it complies with the local planning scheme and policy provisions, and when preliminary planning, such as structure planning, has been finalised.

The WAPC is the responsible decision-making authority for subdivisions under the *Planning and Development Act 2005*. The process for assessing subdivision applications is prescribed in the act, including statutory time frames for

dealing with applications. Once an application has been received, the application is referred to the relevant local government, service authorities and state agencies for comment over a 42 day period. Once comments have been received a determination is made by the WAPC. Determinations are required to be made in 90 days or else the application can be considered refused by the applicant and an appeal can be lodged. In making a determination the WAPC has regard to the local planning scheme, local planning strategy and state policy, and has the ability to place conditions on any approval given. Applicants have the right to appeal a refusal or any condition made on an approval.

Development applications are made to the local government, unless development approval is required under a region scheme, in which case a development application is also required to be submitted to the WAPC. Depending on the permissibility of the use proposed, applications may or may not be required to be advertised for public comment and referred to relevant government agencies. Applications must be consistent with the local planning scheme and local planning policies and may be subject to conditions. An applicant has the right of appeal should an application be refused or on conditions of approval.

Conditions may be applied to both subdivision and development approvals to ensure development is consistent with State and local planning frameworks. In creating conditions there are a number of basic principles which should be applied to ensure the conditions are valid and will be upheld in the case of an appeal. These include:

1. The condition must have a planning purpose. That is, the condition must relate to relevant planning considerations and cannot address matters covered by other legislation.
2. The condition must fairly and reasonably relate to the development being approved and must support what has been applied for, not significantly change it. If significant changes are required, the application

should be refused and a new application submitted. The condition should relate only to the current application and not fetter any future decisions.

3. The condition must be clear and final.

With respect to the imposition of conditions, the WAPC has a list of standard subdivision conditions that may be applied to subdivision approvals. This standard list is not definitive, and was introduced to ensure consistency in requirements across the State. In addition, many agencies have standard advice and recommendations that they provide in response to referrals from the WAPC and local governments regarding both subdivision and development applications. NRM agencies have expressed concern that the standard conditions used by the WAPC do not always adequately reflect the desired NRM outcomes. Similarly, concern has been expressed that the advice and recommendations provided by the NRM agencies are not always able to be translated effectively into planning conditions as per the three basic principles.

The WAPC has recently undertaken reviews of the standard subdivision conditions and, as part of this process, liaised with relevant state agencies to ensure conditions reflect agency requirements and meet the tests of validity as outlined. The review presents an opportunity for agencies to ensure that conditions imposed on subdivisions meet their requirements where possible.

Recommendations and actions:

3. *Support statutory planning processes to address NRM:*
 - b) *Review and update standard subdivision conditions relevant to NRM to ensure wording reflects intent.*

Relevance to NRM

As subdivision and development result in on-ground implementation, these stages of the development process provide an opportunity to ensure NRM outcomes are achieved on the ground. It is at these stages where an applicant can be required to undertake such measures as the preparation and implementation of foreshore and wetland management plans, setting aside areas for public open space and implementing water-sensitive urban design. This is generally achieved through the application of conditions on subdivision and development, and as mentioned, conditions must be based on sound policy and statutory requirements. It is also at the subdivision stage where areas of public open space and foreshore reserves are given up to the Crown as a reserve and vested with an appropriate authority.

Conditions that are placed on a subdivision approval are required to be completed and signed off by the relevant clearing authority before lots can be officially created. This ensures that all conditions relating to the development are met. With development approvals, compliance with conditions is the responsibility of the local government authority, and the follow-up to ensure conditions are met can vary depending on the resources of the local government. Compliance with conditions is vital to ensuring the NRM outcomes are achieved on the ground.

The subdivision and development stages are the last stages in a multi-staged planning process and the relevance to NRM is largely limited to ensuring that the on-ground implementation of NRM outcomes previously determined are achieved. If NRM issues have not been raised and addressed prior to the subdivision and development stages, the ability to deal with these issues will be minimised.

4.8 Summary of opportunities to address NRM in land use planning

Opportunities exist for integrating NRM at all levels in the current land use planning hierarchy, through strategic and statutory planning processes at the State, regional and local levels. NRM considerations should be incorporated into the planning process as early as possible, and reflected in later stages of planning. It can be difficult to achieve NRM outcomes through the subdivision and development of land via planning conditions and advice on preliminary approvals, unless they have been adequately addressed through earlier strategic (eg regional and local planning strategies) and statutory (eg regional and local planning schemes and amendments) planning. It is particularly important to note that land zoned for urban development is highly constrained in terms of opportunities to achieve NRM outcomes such as the protection of environmental assets. It is therefore important that NRM considerations are made prior to the zoning of land, and that these considerations are engrained into the local planning strategy and scheme. The level of opportunity available for addressing NRM at different stages of the land use planning is represented in Figure 8.

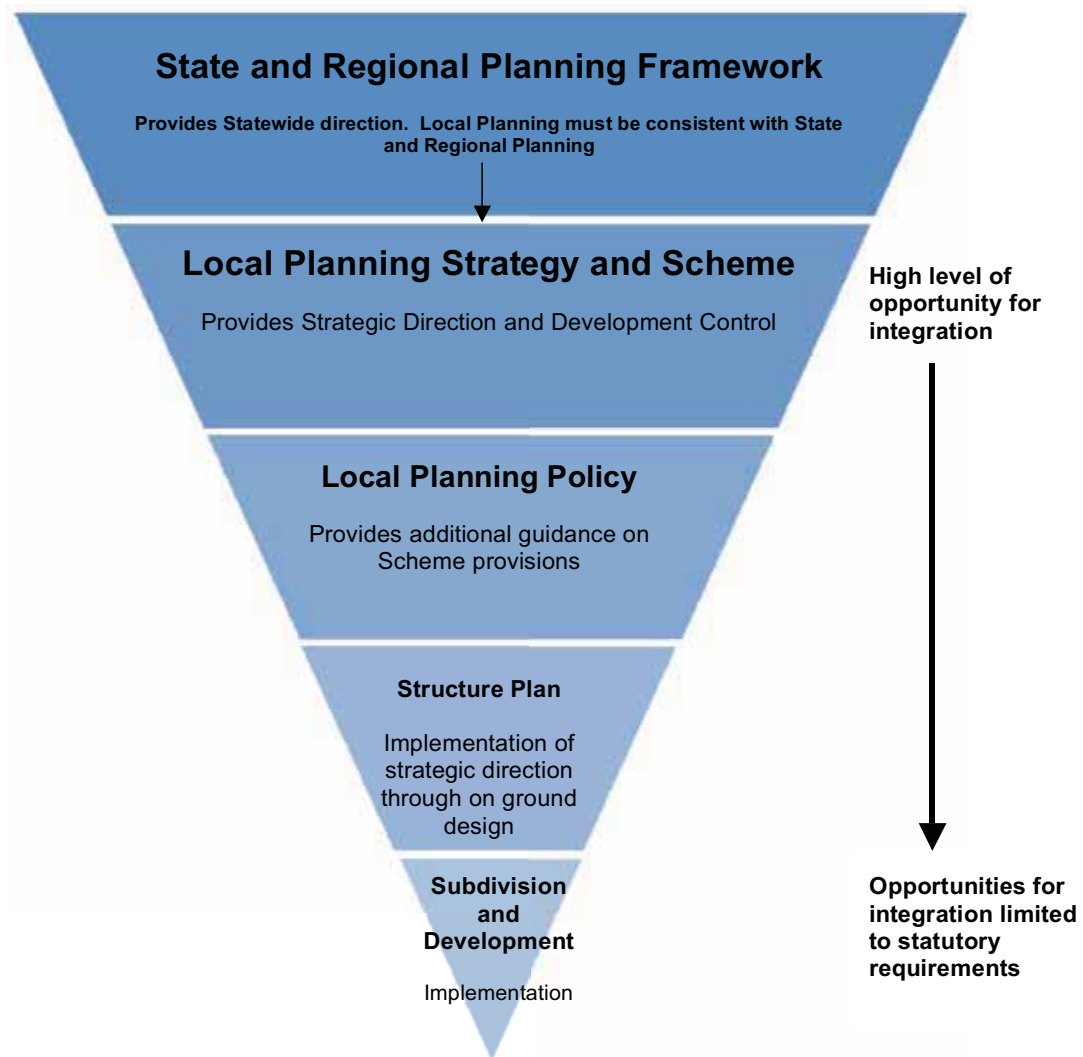


Figure 8: Level of opportunity for addressing NRM at different stages of land use planning in Western Australia

5 NRM and land use planning in peri-urban areas

This section focuses on NRM and land use planning in peri-urban areas as the key findings and recommendations made throughout this paper are particularly relevant to these areas as they tend to represent a hot spot of speculative development pressures and NRM assets.

Peri-urban areas, which are the transition between urban and rural land, represent an important interface between NRM and land use planning, due to the significant NRM assets they contain and the diversity of land uses that they support. As the change from rural to urban use is usually irreversible, and the opportunities to achieve NRM outcomes in an urbanised environment are highly constrained, land use planning in peri-urban areas is very important in achieving NRM outcomes. A lack of strategic rural land use planning, increasing pressure for rural-residential development and decreasing water availability have been identified as key NRM land use planning issues in peri-urban areas. Provision of clear policy direction for regional and rural land use planning, and improving the capacity of local government to undertake rural land use planning at the local level, have been identified as key factors in achieving improved NRM outcomes in peri-urban areas.

Land uses in peri-urban areas are heterogeneous, providing for a wide range of social, economic and environmental functions. Such functions include sources of raw materials and water, sites for major infrastructure, reservoirs of biological diversity, producers of high value agricultural goods, are often areas of great beauty and provide a refuge for people wanting to escape city living.

This diversity of land uses and functions in peri-urban areas can result in a range of NRM issues arising from land use planning pressures such as rural-residential development, subdivision

and fragmentation of rural land and competing land uses. NRM issues in these areas include water resource management, maintenance of biodiversity, protection of agricultural land and basic raw materials, bush fire protection, stock management and biosecurity.

Peri-urban areas have been identified at both a national and State level as a priority for NRM. At the national level, in 2006, the Natural Resource Management Ministerial Council endorsed a framework for future NRM programmes that recognised the need to better integrate peri-urban planning issues into future NRM arrangements. At the State level, the Draft State NRM Plan acknowledges planning and management of urban and peri-urban areas to mitigate adverse social and environmental impacts of rapid population growth, as one of six priority NRM outcomes for the State.

5.1 Level of guidance provided

5.1.1 State planning policies

While a single state planning policy has not been developed specifically to address NRM land use planning issues in peri-urban areas, there are a number of policies that provide some direction on addressing NRM land use planning issues in peri-urban areas, including:

- *State Planning Policy 1 State Planning Framework Policy (Variation No 2)*
- *State Planning Policy 2 Environment and Natural Resources Policy*
- *State Planning Policy 2.1 Peel-Harvey Coastal Plain Catchment Policy*
- *State Planning Policy 2.2 Gnamagara Groundwater Protection*

- *State Planning Policy 2.3 Jandakot Groundwater Protection Policy*
- *State Planning Policy 2.4 Basic Raw Materials*
- *State Planning Policy 2.5 Agricultural and Rural Land Use Planning*
- *State Planning Policy 2.6 State Coastal Planning Policy*
- *State Planning Policy 2.7 Public Drinking Water Source Policy*
- *State Planning Policy 2.8 Bushland Policy for the Perth Metropolitan Region (draft)*
- *State Planning Policy 2.9 Water Resources*
- *State Planning Policy 3 Urban Growth and Settlement*
- *State Planning Policy 3.4 Natural Hazards and Disasters*
- *State Planning Policy 4.1 State Industrial Buffer Policy*
- *State Planning Policy 4.3 Poultry Farms Policy*
- *State Planning Policy 6.1 Leeuwin-Naturaliste Ridge Policy*

Of all the planning policies listed here state planning policies 1, 2.5 and 3 are considered three of the more significant for planning in peri-urban areas.

State Planning Policy 1: State Planning Framework Policy (Variation No 2)

State Planning Policy 1 is significant in the context of planning for peri-urban areas as it establishes the *State Planning Framework* that guides decision-making on land use and development in Western Australia. Local governments and the WAPC must have due regard to the *State Planning Framework* when preparing and assessing planning schemes and making decisions on planning matters. Given peri-urban areas often accommodate a diversity of land uses, which can sometimes lead to competing land use objectives, it is important to note that *State Planning Policy 1* provides some guidance, although limited, on resolving

conflicts between the policies, strategies or guidelines listed under the state planning policy.

State Planning Policy 2.5 Agricultural and Rural Land Use Planning

Given that peri-urban areas were defined earlier as land that is the transition between urban and rural areas, *State Planning Policy 2.5* is particularly important in guiding planning in peri-urban areas. *State Planning Policy 2.5* seeks to manage the impacts on agricultural land and natural resources arising from the location, pattern and timing of subdivision and development of rural land. Importantly the state planning policy establishes local planning scheme provisions for land zoned rural-residential or rural small holdings, aimed at providing consistency for controlling the planning and development of rural settlements. *State Planning Policy 2.5* is currently being reviewed by the WAPC with the intention of providing greater direction on managing the interface between rural and urban settlement.

State Planning Policy 3 Urban Growth and Settlement

Similar to *State Planning Policy 2.5*, *State Planning Policy 3* is particularly important in guiding planning for the transition from rural to urban use. This policy seeks to facilitate sustainable patterns of urban growth and settlement by setting out the requirements of sustainable settlements and communities and the broad policy in accommodating growth and change.

5.1.2 Development control policies and guidelines

Development control policies are the WAPC's operational policies for dealing with the subdivision and development of land. It is important to note that the development control policies highlight the importance of ensuring the subdivision of land is properly planned for and addressed through local planning strategies and schemes. If it is not then subdivision is generally not supported.

Development Control Policy 3.4 Subdivision of Rural Land is important for planning in peri-urban areas as it seeks to guide the subdivision of rural land to achieve the objectives of *State Planning Policy 2.5*, to protect agricultural land, plan for rural settlement, minimise land use conflict and manage natural resources. This policy is important for planning in peri-urban areas as it seeks to guide the subdivision of rural land to achieve the objectives of *State Planning Policy 2.5*, to protect agricultural land, plan for rural settlement, minimise land use conflict and manage natural resources. The policy states that in the absence of planned provision of closer settlement and more intensive agricultural uses, existing large rural lots be retained for traditional forms of farming and that the fragmentation of rural land through piecemeal, unplanned subdivision not be permitted. The policy requires that rural subdivision be properly planned for through the preparation of regional and local planning strategies and provided for in local planning schemes prior to subdivision.

The increase in rural subdivision and urban expansion in peri-urban areas throughout Western Australia has resulted in a greater number of people and facilities being located in proximity to bush fire prone areas. Planning for Bushfire Protection (Edition 2) provides guidance for the consideration of bushfire hazards at various stages of the land use planning process.

These interim guidelines are available from: <<http://www.planning.wa.gov.au/Plans+and+policies/Publications/41.aspx>>.

5.1.3 Regional and sub-regional planning strategies

Regional and sub-regional planning strategies are prepared to guide and coordinate government land use and infrastructure planning for those matters (for example, protection of natural resources, provision of regional open space and transport infrastructure) which can often only be planned for across areas greater than that of one local government. It is intended that regional and sub-regional

planning strategies assist local government in preparing and implementing local planning strategies, schemes and other local planning and development matters. Owing to the environmental, social, cultural, economic and size differences associated with regional and sub-regional areas in Western Australia, standard models of regional planning practice have been considered irrelevant or ineffective. Regional and sub-regional planning strategies are considered particularly important in peri-urban areas where it relates to addressing NRM issues such as water resources management or biodiversity conservation which are best addressed in a regional context.

Some of the regional strategies relevant to peri-urban areas include the following:

- Network City (2004)
- Jandakot Land Use and Water Management Strategy (1995)
- Gnangara Land Use and Water Management Strategy (2001)
- Middle Helena Catchment Area Land Use and Water Management Strategy – Draft (2003)
- Leeuwin-Naturaliste Region Plan – Stage 1 (1988)
- Leeuwin-Naturaliste Region Plan – Stage 2 Draft (1988)
- Albany Regional Strategy (1994)
- Albany Residential Expansion Strategy (1994)
- Peel Regional Strategy (1994)
- Bunbury-Wellington Region Plan (1995)
- Central Coast Regional Strategy (1996)
- Shark Bay Regional Strategy (1997)
- Coastal and Lakelands Planning Strategy (1999)
- Geraldton Region Plan (1999)
- Goldfields-Esperance Regional Planning Strategy (2000) [incorporating the Kalgoorlie-Boulder Structure Plan (2000) and Esperance Structure Plan (2000)]

- Warren-Blackwood Regional Planning Strategy (2000)
- Avon Arc Sub-Regional Strategy (2001)
- Ningaloo Coast Regional Strategy Carnarvon to Exmouth (2004)
- Warren-Blackwood Rural Strategy (2004)

5.2 Land use planning issues in peri-urban areas

As the change from rural to urban use is irreversible, rural land use planning has an important role in determining land use and development in peri-urban areas, so as to minimise NRM impacts. Planning responses in peri-urban areas tend to be reactive rather than proactive as a consequence of limited strategic rural planning at the regional and local level.

Lack of strategic rural planning

At regional forums facilitated by EnviroPlanning throughout the State, local government planners expressed concerns about the inability of some regional planning strategies to provide adequate guidance and direction to local governments on planning to address issues such as managing urban growth, facilitating appropriate rural-residential development, identifying priority agricultural land and significant environmental assets, when developing their local planning strategies. It was acknowledged that a lack of region specific guidance through state planning policies contributed to the ineffectiveness of regional planning strategies. A lack of strategic planning at regional and local levels creates a reliance on broadbased State policy such as *State Planning Policy 2.5* and Development Control Policy 3.4 to address rural settlement planning and rural subdivision issues. These policies, in the absence of well prepared regional and local planning strategies, cannot ensure a holistic consideration of regional and local NRM issues in rural land use planning decision-making.

While the importance of protecting agricultural land next to urban areas to ensure food security has long been recognised, an absence of long-term strategic planning to identify and protect high value agricultural land can contribute to speculative development pressures in peri-urban areas.

Rural-residential development

Sustainable settlement patterns and protection of agricultural land can often be compromised by rural-residential development which seeks to provide for an alternative residential lifestyle in a rural setting through the creation of lots ranging in size from 1-4 hectares. In general, poorly planned rural-residential development emanating from an absence of appropriate regional and local strategic planning tends to result in the inefficient use of land, fragmentation of biodiversity assets, high cost of basic services and transport, and often compromises plans for townsite expansion as urban development is more difficult when land ownership is further fragmented.

Peri-urban areas tend to have low populations and when they expand there is often a lack of funding to support the expansion of infrastructure and services such as transport networks, communications, electricity, sewerage, water facilities and treatment plants, as well as social infrastructure, such as schools, police and health services. The lack of funding to support expansion of infrastructure and services is further compounded by rural-residential development often occurring without developers contributing to basic services, including public open space, roads and community infrastructure, which has implications for the local government and the residents. In the absence of State and local government being able to provide essential infrastructure and services, the creation and management of environmental infrastructure (eg bushland and foreshore reserves) is often not a priority.

State Planning Policy 3 Urban Growth and Settlement encourages a realistic approach to the allocation of rural-residential land based on

forecast estimates of demand for rural living, not on the speculative development of land. Currently, there is a vast stock of rural-residential land on the fringe of the Perth metropolitan region and it is questionable whether the demand for such land actually warrants the amount of land that is either zoned or identified for rural-residential development.

There is a tendency for rural-residential development to be driven by local considerations (eg water availability and land capability) and property market demand rather than an economic driver such as a rural industry, which often results in the creation of commuter settlements. Commuter settlements are not self sufficient and rely on regional centres for employment and supply of goods and services.

Water availability and land capability

A lack of reticulated water in small town sites (such as Bindoon) has previously been used as an argument to justify rural-residential development rather than clustered residential development which would be able to provide an adequate supply of water through rainwater tanks. Furthermore, low land capability of rural land for agricultural production has also been used as justification for subdivision of rural land for rural-residential development.

Subdivision/fragmentation of rural land

Policies for subdivision in rural areas are generally not achieving their original objectives as they are generically applied and tend not to respond to the characteristics and capability of individual areas. Subdivision of rural land is often justified on basis of individual land capability assessment and anecdotal evidence regarding the economic value of the agricultural land. This approach has proved problematic in recent years as DAFWA no longer provides expert advice to the WAPC on subdivision applications and appeals relating to rural land. Fragmentation of land is likely to result in the cumulative loss of productive agricultural land. The scale of development is also increasing so that the rural landscape can be transformed

significantly where large land parcels are subdivided and developed in comparison to the usual few each year.

Lack of resources

There is a general lack of State and local government resources for NRM and land use planning in peri-urban regions. Often the demand for land use change and development in these areas exceeds the resources to effectively plan and manage development and land use change. There are very few environmental planners (or planning staff generally) and limited funding for NRM projects such as gathering of information (including mapping and geographic information systems) to support strategic planning. Local governments in peri-urban areas also have a limited capacity to manage reserves that are vested to them as a result of land use planning processes, for example, the ceding of foreshore reserves to local government where land adjacent to a waterway or wetland is subdivided.

Competing land uses

There is a need to ensure appropriate location of land uses so that the diversity of land uses can co-exist appropriately. This is particularly relevant where extractive industries and landfill sites are proposed in sensitive environments or near sensitive land uses (eg residential development). Rural-residential development on the fringes of urban areas can often contribute to land use conflict with land uses that provide services to urban areas such as sand pits, cattle yards and dog pounds. Such land uses are then accommodated further from the urban fringe to avoid the land use conflicts, which further accentuates the carbon footprint associated with accessing services provided by such land uses.

5.3 NRM issues in peri-urban areas

The 2007 Western Australia State of Environment Report projects that Western Australia's

population will grow by 41 per cent by 2031. Inevitably, this will result in peri-urban areas throughout Western Australia coming under increasing development pressure in order to support this growth.

As mentioned, peri-urban areas fulfil a wide range of social, economic and environmental functions. Urban and rural populations are highly dependent on peri-urban areas for the supply of water, food, basic raw materials, sites for major infrastructure, areas for semi-rural living, recreation, tourism, biodiversity conservation and landscape protection. This diversity of functions, combined with increasing development pressure, can result in a range of issues being experienced, some of which have been discussed in detail following.

Water resource management

The lack of reticulated water in many areas puts pressure on groundwater and surface water resources. Agricultural practices have resulted in significant nutrients and sediment being conveyed to surface water systems, such as the Swan Canning and Peel Harvey estuaries. This has been exacerbated by limited or no setbacks along waterways from development in some areas. Impacts of groundwater drawdown are also putting pressure on sensitive ecosystems such as karst systems, wetlands and remnant vegetation, including Banksia woodlands. There is limited understanding of groundwater and surface water systems outside of the Swan coastal plain, which impedes appropriate decision-making about water management and use, including identification and protection of public drinking water supply areas, use of septic tanks and alternative treatment systems. This also limits the ability to ensure development in floodways and floodplains is appropriate.

Maintenance of biodiversity

Clearing for agriculture has put pressure on areas of remnant vegetation. This is further threatened by the increasing residential and conventional rural-residential subdivision

(clearing for firebreaks, fence lines and building envelopes) and resultant fire management measures and the need for expanded infrastructure, including roads. Sensitive environments are also threatened by climate change and groundwater drawdown. Wetlands are generally protected but often without upland vegetation.

Illegal firewood collection, illegal vehicular access from motor bikes and four wheel drives, and the creation of recreational trails or facilities often results in a loss of native remnant vegetation and biodiversity in reserves through clearing, fragmentation, spread of dieback and erosion. Reserve management places additional pressure on under-resourced councils with often no means of purchasing, and managing regional open space to maintain significant biodiversity values.

There is also often a lack of support for private land conservation. While there are a number of services provided through DEC (eg Land for Wildlife), NRM regional groups (eg funding of biodiversity support officers based with catchment groups) and local governments (land care centres) that provide advice and support to land owners to assist with the management of natural areas on private land, there is a need to consider better coordination and expansion of such services.

Priority agricultural land

There is a need to protect agricultural areas in peri-urban regions from rural-residential development, subdivision and other competing land uses to ensure economic viability of the agricultural industry. The proximity of these areas to urban areas is a critical determinant in their ability to supply the metropolitan area and other regional centres with competitively priced fresh produce, as well as their ability to reduce transport costs and resultant greenhouse gases.

The lack of security of agricultural land close to the urban areas is considered to be a barrier to the uptake of agricultural best management

practices and furthermore, it reduces the flexibility of agricultural industries to adapt to a changing climate and markets.

Local governments are having difficulty in justifying the retention of land for agricultural purposes because areas of prime agricultural land have not been officially identified by DAFWA. Where priority agricultural areas have been identified in the past there has been a tendency for them to directly correlate with areas of irrigated agriculture. Outside of irrigated agricultural areas little direction has been provided to identify priority agricultural areas, particularly for the broadacre agricultural areas that fringe Perth and other regional centres from Geraldton to Esperance.

Basic raw materials

A ready supply of basic raw materials close to developing areas is essential to keep down the cost of land development and the price of housing. Many sites which would be suitable as sources of supply of basic raw materials occur in peri-urban areas, often in locations where planning and environmental considerations preclude or severely constrain extraction. It is important that the availability of basic raw material resources close to the Perth CBD and rapidly growing regional centres are identified and recognised by the planning system in a framework that allows decision-makers to make choices between often conflicting objectives of development and conservation.

Bush fire protection

Fire management is a key issue in the Darling Scarp. The Planning for Bush Fire Protection guidelines significantly affect the viability of proposals, as they are regularly challenged, do not provide adequate guidance for high and medium fire hazard assessment outcomes, and includes an assumption that landholders can manage their properties to achieve prescribed fuel loads. Fire breaks impact the ability to conserve biodiversity through clearing and fragmentation. There is a need for whole-

of-government consistency of fire policy or guidance on how it should be implemented.

Stock management

Increasing numbers of hobby farms resulting from rezoning of rural land to rural-residential or rural small holdings often contributes to increased number of livestock on properties. From a land management perspective a lot of rural-residential and rural small holding properties, particularly those that fringe Perth and other regional centres, are purchased by those people that have little understanding of how to manage the properties, and consequently issues associated with overgrazing, land degradation, nutrient management and fire management often arise.

Biosecurity

Landholders with limited land management experience and the increased presence of people and contractors, particularly where residential and industrial development is proposed, are resulting in the spread of diseases such as dieback, and pests and weeds.

5.4 Addressing land use planning issues in peri-urban areas

Many of the issues resulting from rural land use planning, especially where it relates to protection of agricultural land and planning for rural-residential development, could be resolved through a review and update of *State Planning Policy 2.5* and Development Control Policy 3.4 and provision of guidance to facilitate approaches to rural land use planning that are reflective of the information and expertise contained in State and local government. While *State Planning Policy 2.5* requires that subdivision of rural and agricultural land should be properly planned through the preparation of regional and local planning strategies, and

provided for in local planning schemes prior to subdivision, the only guidance provided to support such an approach is that provided through the guidelines for the preparation of a local rural strategy (1989). It is suggested that the guidelines be updated to provide guidance for the rural land use planning component of local planning strategies, with a focus on using existing regional scale land capability data held by DAFWA, along with other information such as prevailing lot sizes and the distance to market/settlement, to identify rural planning precincts. In a broad sense the rural planning precincts would identify land that has a high capability of supporting a diversity of land uses, land that has a low capability of supporting a diversity of land uses and land that may be suitable for rural-residential development. A rural land use planning approach driven by local planning strategy development is consistent with DAFWA's preference to support development of local planning strategies.

Local planning strategies provide an important opportunity to address NRM land use planning issues in peri-urban areas. Given the varied environmental and planning capacity of local governments it is important that coordinated state agency support is provided to assist development of local planning strategies for peri-urban areas that have high development pressures and high-value environmental assets, in a regional context.

The Draft State NRM Plan has identified planning and management of urban and peri-urban areas to mitigate adverse social and environmental impacts of rapid population growth as one of the six priorities for the state. This presents a significant opportunity for the DoP and NRM agencies to seek funding for addressing the identified issues.

6 Conclusion

The Western Australian land use planning system provides significant opportunities for achieving NRM outcomes. Land use planning can protect natural resources from incompatible land uses, locate development away from sensitive environments, and require the sustainable management of natural resources through change in land uses.

The *Planning and Development Act 2005* establishes NRM matters as a valid planning consideration in land use decision-making, and the *State Planning Framework* identifies the protection and enhancement of natural and cultural assets, as one of five key principles used to guide planning decisions.

Opportunities exist for integrating NRM at different levels in the land use planning framework, through strategic and statutory planning process at the State, regional and local levels. The greatest opportunities for effective integration occurs where NRM considerations are incorporated into planning processes as early as possible and reflected in later stages of planning.

At the regional level, significant opportunities exist to consider the natural extent and significance of environmental assets and the potential for cumulative impacts arising out of land use development. Consideration of NRM through regional planning can be further enhanced by improved coordination and strong involvement of state NRM agencies, local government and NRM regional groups in the identification of NRM land use planning priorities (areas of high development pressure and high environmental value), and collection and interpretation of environmental information for local level planning.

The local planning strategy and scheme provide the greatest opportunity for improving the integration of NRM into land use decision-making at the local level. The strategy provides the justification and rationale for the local

planning scheme, which is the statutory arm of the strategy. If NRM considerations are engrained in the local planning strategy, and are translated into statutory considerations under the scheme, decision-making must have regard to NRM.

Key to the effective integration of NRM into land use planning is the continued and improved coordination of agencies and organisations involved in NRM and land use planning, with a particular need for improved support for local governments.

The recommendations identified in this paper have been formulated with the explicit purpose of providing advice to the WAPC on how the integration of NRM into land use planning can be improved, and are aimed at:

1. improving policy direction and guidance for integrating NRM into land use planning;
2. ensuring whole-of-government involvement in NRM and land use planning; and
3. providing support for local government in integrating NRM into land use planning.

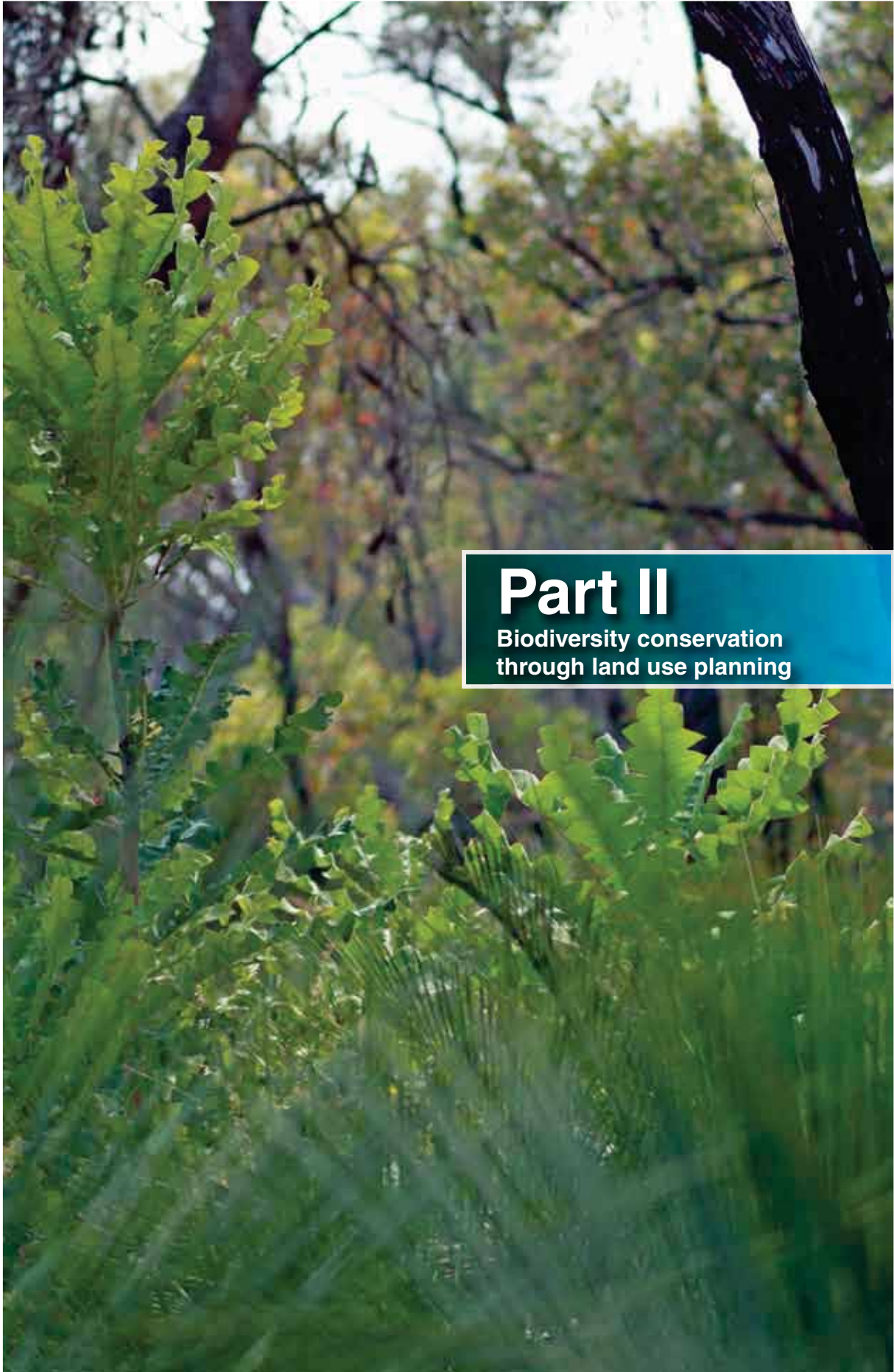
EnviroPlanning received funding for the 2009/10 financial year under the State NRM program to commence implementation of the recommendations identified in the directions paper. For this initial implementation phase, the following recommendations and actions will be progressed:

- Establish agreement between the WAPC and the EPA on the roles and responsibilities for NRM matters through land use planning and decision making.
- Assist the integration of NRM into regional planning strategies and sub-regional structure plans, through the identification of priority natural resources and recommendations for protection and management.
- Prepare case studies and practice notes to support local government integration

of NRM into local planning strategies, schemes, policies and local structure plans.

- Continue to seek funding from the State NRM plan and Commonwealth Government's Caring for our Country program, and administer funding to support local government projects that address the integration of NRM into land use planning.
- Provide technical planning support to local governments for the integration of NRM into land use planning.

Of the remaining recommendations, a number align with the recommendations under the department's publication *Planning Makes it Happen - a blueprint for planning reform*. The DoP will continue to seek funding through the State NRM Program, which recognises land use planning as integral to NRM in Western Australia, to assist the implementation of recommendations of this Directions Paper.



Part II

Biodiversity conservation
through land use planning

7 Biodiversity conservation through land use planning

7.1 Introduction

A detailed case study example is presented in this chapter, to demonstrate how a particular NRM issue – biodiversity conservation – can be addressed through the Western Australian land use planning system. EnviroPlanning has focused on biodiversity conservation in response to local government interest and concern about the extensive clearing of native vegetation in the South-West, particularly clearing on the Swan Coastal Plain for urban development in Perth and Bunbury.

Most of the discussion in this chapter relates to the conservation of terrestrial biodiversity through land use planning in South-West Western Australia. That is not to say that biodiversity in other areas of the State is less important, but the South-West is internationally recognised for its biodiversity values and significant pressures for land development.

First in this chapter, biodiversity conservation is presented as a significant issue for Western Australia. Second, an overview of the main legislation, policies and responsibilities is presented to establish biodiversity as a relevant consideration in land use planning. Third, a summary of local government biodiversity conservation projects is presented, including discussion on the integration of local biodiversity strategies into local planning strategies. Finally, this chapter outlines opportunities and constraints for local governments to achieve effective biodiversity conservation outcomes through land use planning.

7.2 Biodiversity and its conservation

Biological diversity, or biodiversity, is a term used to describe the variety of nature. Biodiversity covers marine, terrestrial, subterranean and aquatic life and implies a highly complex system of interacting entities that occur over a range of temporal and geographic (from local to global) scales. *Australia's Biodiversity Conservation Strategy 2010–2030* defines biodiversity as:

'The variety of life forms – the different plants, animals and micro-organisms, the genes they contain, and the ecosystems they form. It is usually considered at three levels: genetic diversity, species diversity, and ecosystem diversity.'

7.2.1 Biodiversity and natural areas

The three levels of biodiversity – genes, species and ecosystems – are interrelated and interdependent. A population of a species is dependent on the genetic variation in it and its ecosystem for survival, and an ecosystem is dependent on the full variety of species that comprise it (Williams *et al.*, 2001). Biodiversity increases when new genetic variation is produced, a new species evolves or an ecosystem forms; and it decreases when the genetic variation in a species decreases, a species becomes extinct or an ecosystem is lost. Biodiversity is contained and conserved in natural areas. The term natural area is used to describe any physical area that contains native species or ecological communities in a relatively natural state and hence contains biodiversity (Del Marco *et al.*, 2004). Natural areas can be areas of native vegetation, vegetated or open

wetlands (lakes, swamps) or waterways (rivers, streams, creeks and estuaries), springs, rock outcrops, bare ground, caves, coastal dunes or cliffs. Natural areas are areas that have been naturally colonised by living organisms indigenous to that area, and so do not include rehabilitated areas because they do not contain the same level of biodiversity as a natural community that would have once been present in that area.

7.2.2 Biodiversity benefits

Humans are dependent on biological systems and processes for sustenance, health, wellbeing and enjoyment of life. Many people depend on biodiversity and other natural resources for their livelihoods. Outside the main population centres, most income is derived from agriculture, pastoralism, forestry and mining (Gole, 2006). These industries depend on biodiversity and other natural resources for long-term sustainability.

People living in cities also depend on biodiversity for their wellbeing. Natural areas provide the following benefits to the community:

- ecosystem services – maintaining air quality, soil fertility and water quality;
- natural resources – providing food, medicines and industrial products;
- education and research – providing opportunities to learn and appreciate nature;
- spaces for recreation and interaction with nature – maintaining physical and psychological wellbeing; and
- cultural identity and spirituality – maintaining human connections with nature.

Biodiversity also has intrinsic value and many people believe that the present generation has a moral obligation to ensure that the diversity of life on Earth is sustained so that a healthy, life-supporting planet is provided for future generations.

Surveys of community values and attitudes toward natural areas, undertaken by WALGA and individual local governments in Perth have highlighted the importance of urban bushland to the local community. For more information, please refer to the Local Nature Spot Project on WALGA's website: <<http://www.walga.asn.au/about/policy/pbp/projects>>.

7.2.3 Conservation values of Western Australia

Western Australia's rich biodiversity can be attributed to the State's large area, which spans a huge range of geographical, soil and climatic conditions. Western Australia has eight of the 15 national biodiversity hotspots (figure 9), which are areas with many endemic species (species restricted to a certain area) that are experiencing high levels of stress. The hotspots were recognised by the Australian Government in 2003 to increase public awareness of the cost-effectiveness of strategic and timely action to conserve biodiversity. Information on the biodiversity values, threatening processes and management responses for each bioregion in Western Australia, compiled through the Australian Terrestrial Biodiversity Assessment, is available from: <www.anra.gov.au/topics/vegetation/assessment/wa>.

There is no overall indicator of the condition of biodiversity, due to the complexities in measuring diversity and health at genetic, species and ecosystem scales. A useful surrogate measure is the extent of native vegetation types remaining (eg vegetation complexes or vegetation associations), as a proportion of the original or pre-European extent. Reservation of ecosystems can be used as an indicator, with the benchmark of 15 per cent reservation being generally accepted for terrestrial bioregions. As of June 2005, only 20 per cent of sub-regions in Western Australia, as defined by the Interim Biogeographic Regionalisation for Australia (figure 10), met the objective of 15 per cent or more reserved; and 11 per cent of the sub-regions did not contain any formally reserved areas. Overall, only about



Figure 9: International and national biodiversity hotspots in Western Australia (DEC, 2006)

7 per cent of the State is currently reserved in the formal conservation estate, although other forms of conservation measures (such as conservation covenants) are being used.

South-West Australia global biodiversity hotspot

The South-West of Western Australia was recognised as one of the world’s top 25 biodiversity hotspots, due to high levels of species diversity that are under threat from human-induced disturbance (Myers et al., 2000). More recent work has expanded the list, and the South-West is now recognised as one of the world’s 34 biodiversity hotspots (Conservation

International, 2008). Importantly, South-West Australia is the only global biodiversity hotspot in Australia.

South-West Australia is one of the oldest and most diverse landscapes of the world. Vegetation types are often present in mosaics of plant communities that vary considerably over relatively short distances, with high levels of plant species richness and endemism. A significant component of the flora of the region consists of relictual species (species that are extinct over much of their original range and persist only in particular areas), often with naturally fragmented and geographically restricted ranges (Gole, 2006).

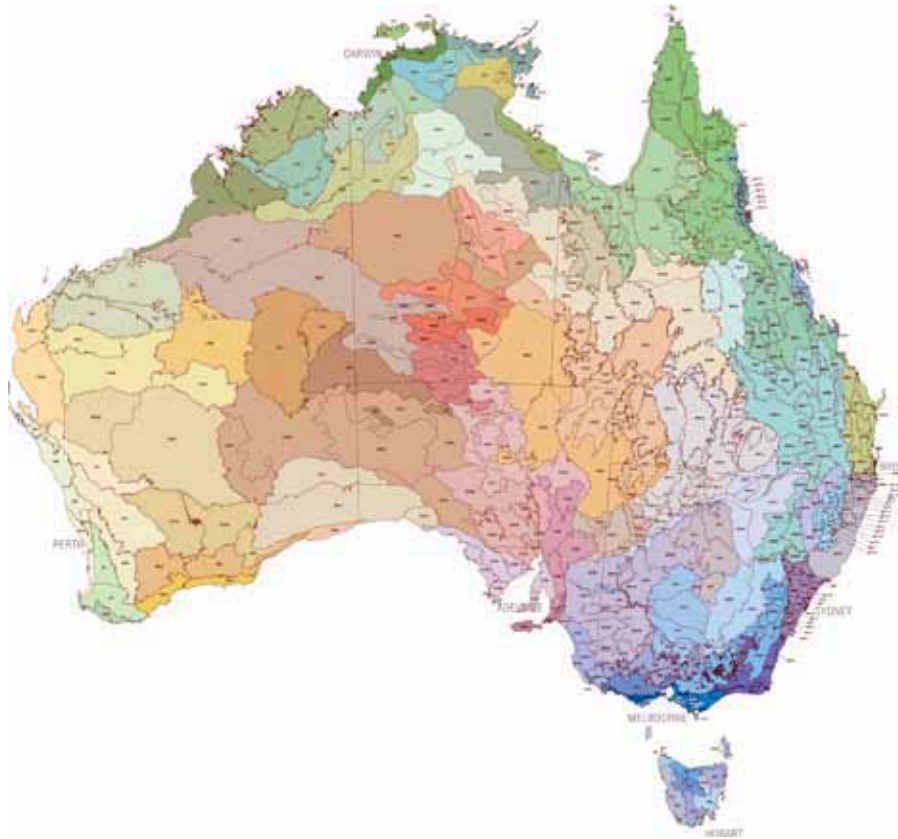


Figure 10: Interim Biogeographic Regionalisation of Australia (DEWHA, 2007a)

Overall, about 40 per cent of the pre-European settlement extent of native vegetation remains in the South-West. The most extensively cleared sub-regions in Western Australia are located in the South-West botanical province: western Avon Wheatbelt (8.6 per cent of native vegetation remaining in 2006); eastern Avon Wheatbelt (18.6 per cent); Dandaragan Plateau (28.9 per cent); Western Mallee (32.8 per cent); Lesueur Sandplain (40.9 per cent); Perth (41.2 per cent); Geraldton Hills (43 per cent); and Recherche (48 per cent) sub-regions. Consequently, these sub-regions have a higher proportion of threatened flora and ecological communities than other areas of the State.

In the global biodiversity hotspot are smaller floristic hotspots, or areas of exceptional plant diversity (figure 11). Interestingly, the Swan Coastal Plain portion of the Perth metropolitan region is recognised as one of the areas containing extremely diverse floras. The Swan

Coastal Plain has high natural values, is the most populous and densely settled area of the State and, together with the Wheatbelt, and is the most heavily cleared area of the State. Only 22 per cent of the southern Swan Coastal Plain (ie the Swan Coastal Plain south of the Moore River) remains vegetated. It is estimated that 80 per cent of wetlands on the Swan Coastal Plain have been lost or irreversibly degraded, and more than 97 per cent of vegetation on the heavier, more fertile soils on the eastern side of the Swan Coastal Plain has been cleared.

Flora and fauna of South-West Australia

South-West Australia is characterised by a highly diverse flora – dominated by woody and herbaceous perennials such as myrtles (eucalypts, bottlebrushes and tea trees), proteas (banksias, grevilleas and dryandras), peas and wattles – that has evolved to cope with nutrient

deficient soils (Gole, 2006). The most recent estimate of species richness for the South-West suggests that there are 7380 taxa, of which 49 per cent of the species are endemic, representing two thirds of the estimated plant taxa in Western Australia. Knowledge of South-West Australia's flora is recent (one third of the species now known has been described in the last 30-40 years) and is still increasing, with new species being discovered each year (Hopper & Gioia, 2004).

The South-West is recognised as a global biodiversity hotspot due to the number and natural diversity of its vascular plants. It also

has a rich and varied fauna (Gole, 2006). Seven species of mammals, 13 species of birds, 34 species of reptiles and 28 species of frogs are endemic, and many are threatened, giving South-West Australia the highest concentration of rare and endangered species on the continent

South-West Australia is a globally significant endemic bird area, an area recognised by BirdLife International as containing at least two endemic bird species. The South-West substantially exceeds this minimum criterion, with 13 endemic birds, of which four species and two subspecies are listed as threatened. Carnaby's black cockatoo, for example, once

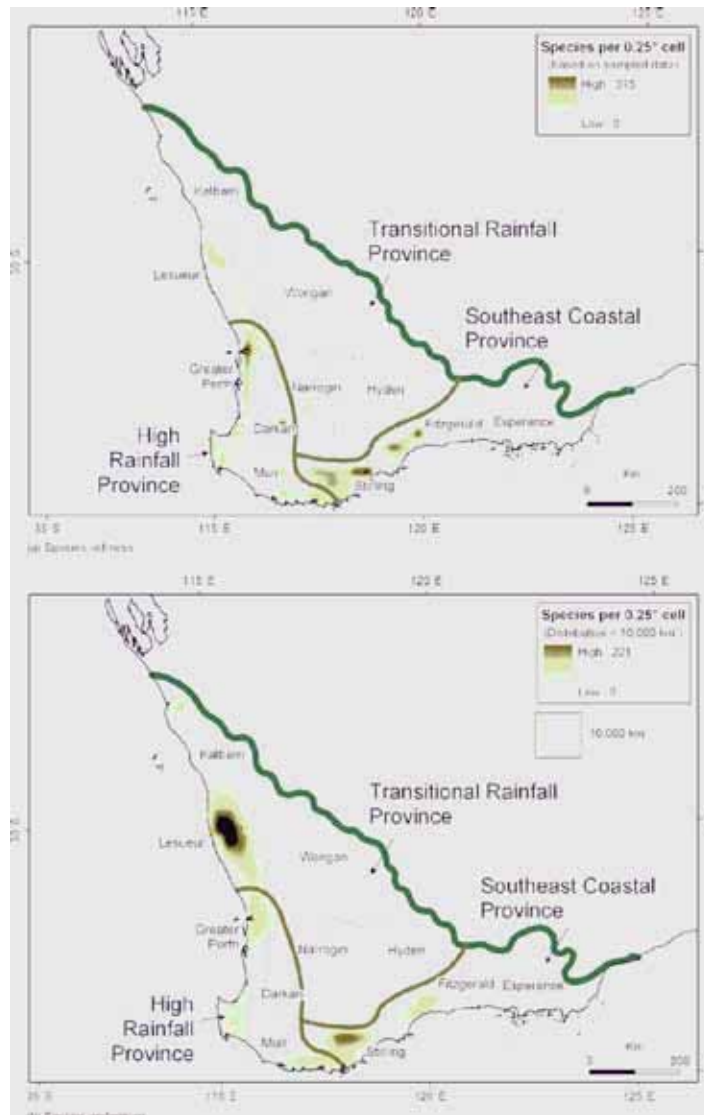


Figure 11: Hotspots of species richness and endemism in the South West (Hopper & Gioia, 2004)

was numerous in Western Australia but is now listed as endangered, with populations declining dramatically due to land clearing for urban development in Perth and elsewhere on the Swan Coastal Plain, and for agriculture in regional areas (Shah, 2006).

7.2.4 Threats to biodiversity in South-West Australia

In South-West Australia, biodiversity and other natural resources are under threat from broad-scale threatening processes, including:

- clearing and fragmentation
- dieback caused by *phytophthora* root fungus
- dryland salinity
- altered hydrology
- invasions by weeds and feral animals
- inappropriate fire regimes
- climate change

At large scales, these events and processes may threaten whole vegetation types, remnants or populations of species. At small scales, microhabitats and small populations may be threatened (Gole, 2006). Some of these threats (eg weed invasion) can be controlled, but other factors (eg climate change) exist outside the realm of the land manager's control (Del Marco *et al.*, 2004). Threats to biodiversity not only come from biological and physical processes, but also from institutional issues. Foremost amongst these problems is the failure to adequately value biodiversity in decision-making, and this is exacerbated by shortcomings in knowledge of biodiversity and the lack of commitment and capacity to manage ongoing threats.

Land clearing in South-West Australia

Clearing of native vegetation, both historic and current, is a major threatening process affecting biodiversity in Western Australia. The loss of habitat area through clearing is currently

the primary cause of declines in species and populations worldwide (Millennium Ecosystem Assessment, 2005). The *Environmental Protection Act 1986* defines clearing to mean the killing or destruction of, or the doing of any other substantial damage to, some or all of the native vegetation in an area, and includes the draining or flooding of land, the burning of vegetation, the grazing of stock, or any other act or activity, that causes substantial damage to some or all of the native vegetation in an area.

Clearing of native vegetation has obvious environmental implications, but it also has significant social and economic implications. In some parts of Western Australia (especially the Wheatbelt and parts of the Swan Coastal Plain), native vegetation has been cleared beyond safe ecological limits. Continued clearing will result in loss of biodiversity and extinctions, with fragmented habitats becoming more susceptible to climate change, disease, and invasion by weeds and introduced animals. Salinisation of land and inland waters, altered water regimes, soil erosion, eutrophication and increased greenhouse gas emissions are all direct consequences of clearing native vegetation.

Fragmentation of landscapes through the clearing of native vegetation destroys biodiversity, resulting in the direct loss of plant and animal species and destruction of habitat, and results in small and unconnected remnants that are susceptible to degradation due to threats, including edge effects (such as weed invasion). The ability of native animals and plants to disperse across landscapes is affected, as is the ability of populations to re-colonise areas after disturbance or mortality (Del Marco *et al.*, 2004). This generally results in the continuing loss of species long after land is initially cleared (Gole, 2006).

Historically, widespread clearing occurred for development of intensive agriculture (wheat and sheep farming) in the South-West. Since the 1980s, agricultural expansion has slowed and clearing controls have been enforced, but recent expansion of the wine and plantation industries has increased clearing activity in small pockets

of the South-West. Most of this land clearing has been undertaken to accommodate population increases and associated demand for housing. Urban expansion has increased dramatically around Perth and other major regional centres on the South-West coast. Continued loss of native vegetation in the Perth metropolitan region is forecast as many areas have been zoned urban in the planning system but have not yet been developed.

Clearing for urban development is an increasing pressure on biodiversity in South-West Australia, especially in the Perth metropolitan region and in many regional towns. In the City of Wanneroo, for example, 1192 hectares of native vegetation was cleared between 2001 and 2005, representing around 30 per cent of the total amount of native vegetation cleared in the Perth metropolitan region during this period. Outside of the metropolitan region, 40 per cent of local governments in the South-West have less than 15 per cent of the pre-European extent of native vegetation remaining (Shepherd *et al.*, 2001). Subdivision for rural-residential developments in these areas of the South-West, with the associated clearing for infrastructure, stocking and other mismanagement of land, is causing significant degradation of natural areas, often in already highly cleared landscapes.

7.2.5 Conservation planning in South-West Australia

Biodiversity is conserved primarily through the identification, retention, protection and management of natural areas. From a biodiversity point of view, protecting native vegetation from being cleared is a higher priority than re-establishing habitats in cleared areas, as it can take five to ten decades for soils, vegetation and wildlife to recover to sustainable levels.

The EPA has been particularly concerned with the identification and protection of regionally significant natural areas since its inception in 1972, when it set up the Conservation Through Reserves Committee to study the provision

of a set of reserves representing the major communities of natural ecosystems in 12 regions or systems of Western Australia. The systems reports were produced in the 1970s and early 1980s. Subsequently, the whole of Australia was divided into natural regions through Interim Biogeographic Regionalisation for Australia (figure 10), which is now used to guide conservation planning.

Current conservation planning is informed and driven by the DEC rather than the EPA. The department initiatives in conservation planning under the *Conservation and Land Management Act 1986* include the South Coast Regional Management Plan 1992, which addresses conservation planning across the entire DEC South Coast region. Similar plans exist for other DEC regions.

EPA Guidance Statement No. 10 applies specifically to the System 6 area and the Swan Coastal Plain bioregion portion of the System 1 area (section 7.4.4). The Swan Coastal Plain bioregion is the focus for a large number of development proposals brought to the EPA for the assessment of their environmental impacts. To deal with these in a proactive manner, the EPA began an update of System 6 in 1994. The update focused on the southern Swan Coastal Plain, with the objective of reviewing the conservation recommendations for this region to take account of the more recent and much improved information available on flora and fauna. In 1996 this program was split, with priority given to the Perth metropolitan region of the Swan Coastal Plain through the Perth's Bushplan project, which was completed with the release of Bush Forever in 2000 (section 7.4.7).

Conservation planning is dependent on the availability of quality information on biodiversity, particularly at the regional scale. The EPA recognises there is a need for the update of the remainder of System 6 and part of the System 1 area to be completed, as non-metropolitan areas of the South-West are under increasing pressure for urban development. An update of the remainder of the Swan Coastal Plain in the System 6 and System 1 areas is currently being

undertaken through the Swan Bioplan Project, which will greatly assist planning for biodiversity conservation in coastal areas south of Perth.

Role of land use planning in biodiversity conservation

Land use planning has an important role in achieving biodiversity conservation outcomes in Western Australia. As outlined in section 7.2.3, extensive areas of native vegetation exist outside the formal conservation reserve system – areas referred to as off-reserve. Biodiversity conservation involves the retention, protection and management of natural areas in reserves and off-reserves, affecting both public and private land. The land use planning system can achieve conservation outcomes through the identification and protection of natural areas with significant biodiversity values, by directing development away from natural areas, and by controlling the impacts of land uses on these areas. These issues are further explored in section 7.6, including opportunities to address biodiversity conservation through land use planning at the local government level.

7.3 Biodiversity conservation at the international and national scales

7.3.1 Convention on biological diversity

Biodiversity conservation is a global issue and is best confronted through multilateral cooperation. Australia can take action to conserve its own biodiversity and contribute to the conservation and ecologically sustainable use of natural resources on a global scale. In recognition of this, Australia is party to the *Convention on Biological Diversity*, an international treaty to sustain the rich diversity of life on Earth. The treaty is a key agreement of the comprehensive strategy for sustainable development adopted by world leaders at the 1992 Earth Summit in Rio de Janeiro. It establishes three main goals:

- conservation of biological diversity;
- sustainable use of its components; and
- fair and equitable sharing of the benefits from the use of genetic resources.

In April 2002, the parties to the *Convention on Biological Diversity* committed to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national levels. The 2010 biodiversity target is a strong international commitment to reduce the current rate of biodiversity loss. Land clearing and fragmentation is recognised as a major threat to biodiversity, so the Western Australian land use planning system can play a significant role in achieving the Australian Government's commitments under the *Convention on Biological Diversity*.

7.3.2 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* is the Australian Government's central piece of environmental legislation, which is administered by SEWPAC. The objectives of the Act include providing for the protection of the environment (especially matters of national environmental significance), conserving Australian biodiversity, and providing a streamlined national environmental assessment and approvals process. Further information on the *Environment Protection and Biodiversity Conservation Act 1999* is available from <http://www.environment.gov.au/epbc/about/index.html>.

The *Environment Protection and Biodiversity Conservation Act 1999* aims to protect Australia's biodiversity through:

- identification and listing of species and ecological communities as threatened;
- development of conservation advice and recovery plans for listed species and ecological communities;
- development of a register of critical habitat;

- recognition of key threatening processes; and
- reducing the impacts of these processes through threat abatement plans.

The *Environment Protection and Biodiversity Conservation Act 1999* provides a legal framework for the protection and management of nationally and internationally important flora, fauna, ecological communities and heritage places, which are defined in the Act as matters of 'national environmental significance'. These include world heritage properties, national heritage places, Ramsar wetlands, listed threatened species and ecological communities, and migratory species protected under international agreements.

Under the Act, a person who proposes to take an action which will have, or is likely to have, a significant impact on a matter of national environmental significance is responsible for referring the action to the Commonwealth Environment Protection Minister for a decision as to whether an assessment is required. Significant impact guidelines for matters of national environmental significance are available from: <www.environment.gov.au/epbc/publications/nes-guidelines.html>.

Strategic assessment

As an alternative to the standard referral for assessment, a proposal may be referred for strategic assessment under the *Environment Protection and Biodiversity Conservation Act 1999*. Strategic assessments and approvals under part 10 (section 146) of the Act allows the minister to enter into an agreement with a person adopting or implementing a plan, policy or program (a plan) to assess and endorse that plan. The minister may then approve actions or classes of action taken consistent with the endorsed plan, obviating the need for project level assessments under the act.

SEWPAC is promoting the use of strategic assessments to improve the integration of NRM matters into the Western Australia land use planning system. In July 2008, the Council of

Australian Governments Business Regulation and Competition Working Group identified that the strategic assessment provisions of the *Environment Protection and Biodiversity Conservation Act 1999* are key to harmonising administration of State and Commonwealth planning and environment protection legislation. This was reiterated in the Report of the Independent Review of the *Environment Protection and Biodiversity Conservation Act 1999* (October 2009).

Bilateral agreement

In instances where a project referral requires assessment and approval of both the Commonwealth Environment Protection Minister and the Western Australia Government, the action may be assessed according to the bilateral agreement that was entered by the Commonwealth and Western Australia Government, under section 45 of the *Environment Protection and Biodiversity Conservation Act 1999*, on 8 August 2007. The bilateral agreement allows for the environmental impact assessment of an action to be undertaken by Western Australia, on behalf of the Commonwealth, and once assessed, for an assessment report to be provided to the Commonwealth Environment Protection Minister so the minister can determine whether to approve or refuse the taking of the action for the purposes of the *Environment Protection and Biodiversity Conservation Act 1999*. This means there is no need for a separate assessment process to be undertaken by the Commonwealth.

The Commonwealth-Western Australian bilateral agreement, in effect, accredits certain environmental impact assessment processes under Western Australia legislation as a means of lessening the regulatory impost on proponents by reducing duplication in the standard project referral assessment processes. The bilateral agreement also provides for some other areas of cooperation between the Commonwealth and Western Australia, including in relation to setting conditions attached to approvals and monitoring compliance with those conditions, as well as

generally strengthening intergovernmental cooperation.

Relevance to land use planning in Western Australia

Currently, 339 flora taxa (12 extinct, 9 critically endangered, 207 endangered and 111 vulnerable), 118 fauna taxa (14 extinct, 4 critically endangered, 22 endangered and 78 vulnerable) and 16 ecological communities (all endangered) from Western Australia are listed under the *Environment Protection and Biodiversity Conservation Act 1999*. Of the extant taxa (still in existence), 313 flora taxa and 49 fauna taxa are endemic to Western Australia, and most are confined to the South-West.

Details of heritage places, species, ecological communities and wetlands listed under the *Environment Protection and Biodiversity Conservation Act 1999* are available from <www.environment.gov.au/epbc/about/lists.html>. Important information from the online database relevant to land use planning includes the legal status, geographic distribution, population records, preferred habitat, and survey guidelines for protected species. Mapping of core habitat for threatened species (including Carnaby's Black-Cockatoo, Western Ringtail Possum, and Graceful Sun Moth) is being undertaken for areas under pressure for urban development in the Perth and South-West regions. This information will greatly assist land use planning, as it is difficult to plan for the protection of habitat when it has not been spatially defined.

7.3.3 Australia's Biodiversity Conservation Strategy

Australia's Biodiversity Conservation Strategy 2010–2030 is the guiding framework for conserving the nation's biodiversity over the next two decades. It has been developed following review of the *National Strategy for the Conservation of Australia's Biological Diversity* (DEST 1996) and the *National Objectives and Targets for Biodiversity Conservation 2001–2005* (DEH 2001). The national strategy and targets

were prepared in response to article 6 of the Convention on Biological Diversity, which obliges all parties to develop and implement a national biodiversity strategy and action plans.

Australia's Biodiversity Conservation Strategy identifies three national priorities for action:

1. Engaging all Australians in biodiversity conservation through:
 - mainstreaming biodiversity
 - increasing Indigenous engagement
 - enhancing strategic investments and partnerships
2. Building ecosystem resilience in a changing climate by:
 - protecting diversity
 - maintaining and re-establishing ecosystem functions
 - reducing threats to biodiversity.
3. Getting measurable results through:
 - improving and sharing knowledge
 - delivering conservation initiatives efficiently
 - implementing robust national monitoring, reporting and evaluation.

Each of the priorities for action is supported by sub-priorities, outcomes and actions. The strategy also contains 10 interim national targets for all governments to work towards in the first five years (by 2015), including:

4. Achieve a national increase of 600,000 km² of native habitat managed primarily for biodiversity conservation across terrestrial, aquatic and marine environments.
5. 1,000 km² of fragmented landscapes and aquatic systems are being restored to improve ecological connectivity.
6. Four collaborative continental-scale linkages are established and managed to improve ecological connectivity.

- All jurisdictions will review relevant legislation, policies and programs to maximise alignment with Australia's Biodiversity Conservation Strategy.

7.3.4 National targets for biodiversity conservation

The *National Objectives and Targets for Biodiversity Conservation 2001-2005* aimed to:

- prevent clearing of ecological communities with less than 30 per cent of the original extent remaining;
- protect a representative sample of each bioregion in the national reserve system, indigenous protected areas or private land managed for conservation under a conservation agreement;
- recover ecological communities with less than 10 per cent of the original extent remaining;
- establish effective incentive mechanisms to support the protection of biodiversity off-reserve; and
- protect threatened species and ecological communities.

The 30 per cent and 10 per cent threshold levels (figure 12) recognised by the national targets are reflected in state government policy for Western Australia, and are therefore used to guide planning and decision-making. The EPA Position Statement No. 2 *Environmental Protection of Native Vegetation in Western Australia* acknowledges that: (i) 30 per cent of the original extent of each vegetation type is regarded as the threshold level below which species loss appears to accelerate exponentially at an ecosystem level; and (ii) 10 per cent of the original extent of each vegetation type is regarded as the level representing endangered.

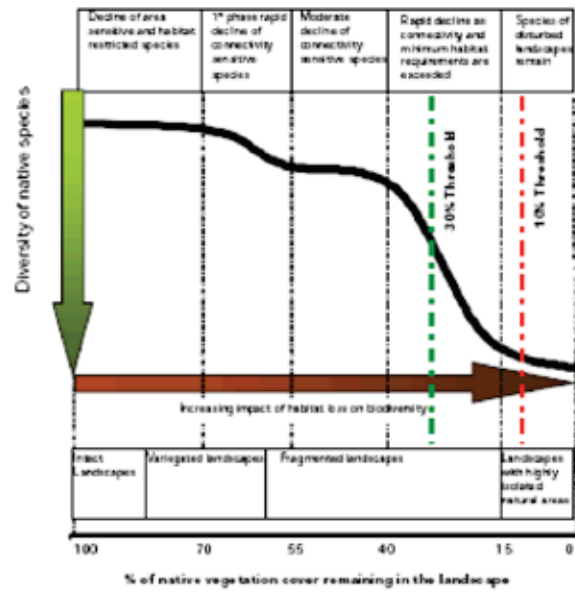


Figure 12: Biodiversity loss in relation to native vegetation (Del Marco et al., 2004)

7.4 Legislative and policy framework for biodiversity conservation in WA

The basis for biodiversity conservation through land use planning in Western Australia is derived from a range of international agreements, Australian and State Government legislation, and statutory and non-statutory policies and strategies at the national and State levels. The concept of biodiversity encompasses many different facets of the natural environment, thereby involving many different pieces of legislation and statutory and non-statutory policies of the EPA, the WAPC, and the State and Commonwealth Governments. The Commonwealth Government's legislative and policy framework for biodiversity conservation was outlined in section 7.3.2. The main acts of Parliament and State Government policies governing biodiversity conservation in Western Australia are outlined in the following sections.

7.4.1 *Wildlife Conservation Act 1950*

The *Wildlife Conservation Act 1950*, administered by the DEC, provides for the protection of native flora and fauna in Western Australia. The Act gives protection against the taking of native flora and fauna, controls dealings in native flora and fauna, and specifies licensing requirements.

Plants and animals listed as threatened under the Act appear in wildlife conservation notices, usually published annually in the *Western Australian Government Gazette*. Under DEC policy, threatened plants and animals are ranked as critically endangered, endangered or vulnerable, using criteria set out by the World Conservation Union. Currently there are 391 extant threatened plant species (declared rare flora) and 210 threatened animal species in Western Australia, and 13 plant species and 18 animal species thought to be extinct.

A non-statutory list is maintained for threatened ecological communities as endorsed by the Minister for Environment. There are currently 69 ecological communities endorsed as threatened. Of these, 21 are critically endangered, 17 endangered, 28 vulnerable, and three presumed totally destroyed.

The DEC also maintains lists of other species and ecological communities of conservation significance, called priority flora, priority fauna and priority ecological communities. These are either poorly known and require further information before they can be considered for listing as threatened, or are in need of monitoring or ongoing management to ensure that they do not become threatened. The DEC's Species and Communities Branch is custodian of databases providing distributional data on threatened and priority species and communities.

Proposed Biodiversity Conservation Act

It has been recognised for some time that the *Wildlife Conservation Act 1950*, the principal Western Australian legislation relating directly to

biodiversity conservation, is out of date and in need of reform. The Government made a priority commitment prior to the last election to introduce modern biodiversity conservation legislation – a biodiversity conservation Bill to replace the *Wildlife Conservation Act 1950*. Despite releasing a consultation paper on this matter in 2002, the State Government is yet to introduce a biodiversity conservation Bill for Western Australia.

It is proposed that a Biodiversity Conservation Act will:

- strengthen protection of identified threatened species, and extend this protection to threatened ecological communities;
- ensure that decisions to specially protect species and ecological communities are made in accordance with clear statutory criteria and on the basis of advice from an independent, expert Threatened Species and Communities Scientific Committee;
- place special restrictions on the circumstances in which licences to harm threatened species or ecological communities can be granted;
- improve enforcement mechanisms, including increased penalties and the power for the Minister for the Environment to issue conservation orders to ensure site-specific protection of threatened species or ecological communities;
- include controls on environmental pests and weeds and more effective controls on the importation of species that may become pests or weeds;
- provide greatly increased penalties for unauthorised exports of animals, and extend export controls to plants and other biota;
- provide that the minister may, on the recommendation of the Threatened Species and Communities Scientific Committee, list key threatening processes;
- provide that once a key threatening process is listed, regulations may be

made to control that threatening process, where it is impacting on biodiversity conservation; and

- provide statutory backing to nature conservation covenants under which landholders can voluntarily protect the biodiversity on their land in perpetuity.

A particular goal of the State Government will be for the proposed new Biodiversity Conservation Act to meet criteria for accreditation to allow State implementation of relevant parts of the *Environment Protection and Biodiversity Conservation Act 1999*, which would provide for greatly simplified and more certain application of biodiversity conservation controls.

7.4.2 *Conservation and Land Management Act 1984*

The *Conservation and Land Management Act 1984* administered by the DEC, applies to all land under the control of the Conservation Commission and the DEC and includes State forest, timber reserves, national parks, conservation parks and nature reserves. These areas are protected under the Act, and are recognised in the EPA's policies, including those relating to land use planning.

The *Conservation and Land Management Act 1984* establishes the Conservation Commission, which has a primary function of advising the Minister for the Environment on the development of policies for the conservation and management of biodiversity throughout the State. In the Act, biodiversity means the variability among living biological entities and the ecosystems and ecological complexes of which those entities are a part, and includes diversity in and between native species, diversity of ecosystems, and diversity of other biodiversity components, (including habitats, ecological communities, genes, and ecological processes).

Under the *Conservation and Land Management Act 1984*, the DEC is responsible for the conservation and protection of flora and fauna throughout the State. The DEC is also responsible

for research into the conservation and protection of flora and fauna, and the taxonomy of flora and introduced plants, and is required to promote and encourage rehabilitation of land and conservation of biodiversity throughout the State. Furthermore, DEC carries out the *Conservation and Land Management Act 1984* function of planning for protected areas. These plans can include recommendations extending beyond the boundaries of existing DEC-managed lands.

7.4.3 *Environmental Protection Act 1986*

As outlined in section 2.2.1 of this report, the *Environmental Protection Act 1986* is the principal piece of State legislation governing environmental protection in Western Australia. The Act is administered by the EPA, with support from the DEC. The main purposes of the Act are to:

- (i) establish the EPA;
- (ii) provide for conservation, preservation, protection, enhancement and management of the environment; and
- (iii) deal with prevention, control and abatement of pollution and environmental harm.

In the *Environmental Protection Act 1986*, environmental harm means direct or indirect harm to the environment involving (among other things) removal or destruction of, or damage to native vegetation or the habitat of native vegetation or indigenous animals.

One of the key principles of the *Environmental Protection Act 1986* is the conservation of biological diversity and ecological integrity. With respect to this principle, the Act provides for the assessment of environmentally significant projects by the EPA (part IV), contains provisions that protect native vegetation and allow for approved clearing activities (part V division 2), and it provides for vegetation conservation notices to be issued (section 70).

Environmental impact assessment

Environmental impact assessment of planning schemes and development proposals, as discussed in section 3.3.2, has the potential to achieve significant outcomes for biodiversity conservation through land use planning.

Section 38 of the *Environmental Protection Act 1986* requires that all proposals likely to have a significant effect on the environment (such as subdivision or development of land that would result in clearing of natural area with high conservation significance) be referred to the EPA for assessment. Proposals that have environmental impacts that can be managed by enforceable requirements, or are in accordance with an assessed scheme that has had all environmental issues previously assessed, are not required to be referred to the EPA. The EPA may decide not to undertake formal assessment of a proposal referred to it because it is deemed that environmental impacts can be appropriately managed by other processes, including through the land use planning system.

Under section 38 of the *Environmental Protection Act 1986*, the EPA may also assess a strategic proposal, which is a proposal that involves future stages that are likely to have a significant effect on the environment, or if implemented in combination with each other, are likely to have a significant effect on the environment. Referral of a strategic proposal is usually by the proponent on a voluntary basis and is initiated through discussions with the EPA.

In 1996, the planning legislation, including the *Town Planning and Development Act 1928*, was amended to require that all schemes and scheme amendments be referred to the EPA. At the same time, the *Environmental Protection Act 1986* was amended to provide for the assessment of those referrals by the EPA (under part IV division 3, but commonly referred to as section 48A). Section 48A of the Act applies to new regional and local planning schemes, and scheme amendments (eg rezoning of land from rural to urban, which would result in clearing of natural areas with high

conservation significance). In deciding the level of assessment, the EPA determines whether environmental impacts can be adequately managed through other processes, including through the land use planning system.

The EPA may decide to undertake a formal assessment where the scheme or amendment may result in a significant impact on the environment. The result of environmental impact assessment is often a revised scheme as set out in ministerial conditions. Where the impact of the scheme or amendment is not considered to be significant, or can be adequately managed through other processes, a formal assessment is not undertaken, but the scheme is deemed assessed (with or without advice). It must be noted that if a scheme is deemed assessed, it cannot be assessed again under section 48A of the *Environmental Protection Act 1986*.

The majority of schemes and amendments are not formally assessed by the EPA, often because the amendments are small enough not to be considered to have a significant effect on the environment. Also, the EPA may not formally assess schemes or amendments because there is not enough information available at the time of rezoning regarding the future scale or forms of development for the impacts to be adequately assessed. In these instances, the EPA may decide to not assess, that is defer consideration of particular environmental factors until a later stage in the planning process.

Matters affecting the effectiveness of environmental impact assessment

As discussed in section 3.3.2, there is a common misconception amongst planners that it is the sole or primary responsibility of the EPA to address NRM matters, including biodiversity conservation, through the environmental impact assessment process. The outcomes of environmental impact assessment seem to be misinterpreted by planners in many situations, regardless of whether or not the EPA undertakes formal assessment of a scheme or proposal:

- If the EPA assesses a scheme or proposal, planners often assume that all

NRM issues have been addressed through environmental management commitments and do not need further attention through the land use planning process.

- If the EPA does not assess a scheme or proposal, planners often assume that the site subject to the proposed land use or development does not contain any significant natural features that need to be managed through the land use planning process.

It has been suggested that improved wording of the recommendations could go some way towards addressing this issue in the future. The EPA's recent review of the environmental impact assessment process has considered the rewording of recommended conditions.

Key recommendations of this directions paper that aim to improve the role of environmental impact assessment in land use planning in order to achieve NRM outcomes (such as biodiversity conservation), include:

- Establish a joint approach by the EPA and the WAPC to address NRM matters through land use planning, by preparing and implementing a memorandum of understanding to establish agreement on agency expectations, environmental planning priorities, and suitable environmental conditions and advice.
- Introduce new processes to improve the DoP's consideration of NRM in land use planning, by developing and implementing a procedures manual for internal and external planning processes relevant to NRM.
- Support implementation of EPA policy in land use planning, by promoting and allocating resources for implementation of EPA Guidance Statement No. 33.

Environmental advice

An alternative to environmental impact assessment is the provision of advice by the EPA to the Minister for Environment, under section 16(e) of the *Environmental Protection*

Act 1986. This approach has been adopted for the preparation of the Preston Industrial Park structure plan, and for strategic environmental planning for the coastal strip between Dawesville and Binningup.

Native vegetation protection and clearing

Native vegetation is defined in the *Environmental Protection Act 1986* and in the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 as aquatic and terrestrial vegetation indigenous to Western Australia, including dead vegetation and vegetation intentionally planted for the purpose of biodiversity or land conservation.

Under part V division 2 of the *Environmental Protection Act 1986*, a person who causes or allows clearing commits an offence unless the clearing is done in accordance with a clearing permit, or is of a kind described in schedule 6 of the Act, or is of a kind prescribed in the clearing regulations and is not done in an environmentally sensitive area.

In making a decision on a clearing permit application, the DEC's chief executive officer must have regard to the principles contained in schedule 5 of the *Environmental Protection Act 1986*, and to planning instruments or other relevant matters. Schedule 5 of the Act states:

'Native vegetation should not be cleared if:

- (a) it comprises a high level of biological diversity;*
- (b) it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia;*
- (c) it includes, or is necessary for the continued existence of, rare flora;*
- (d) it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community;*
- (e) it is significant as a remnant of native vegetation in an area that has been extensively cleared;*

- (f) *it is growing in, or in association with, an environment associated with a watercourse or wetland;*
- (g) *the clearing of the vegetation is likely to cause appreciable land degradation;*
- (h) *the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area;*
- (i) *the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water; or*
- (j) *the clearing of the vegetation is likely to cause, or exacerbate, the incidence of flooding.'*

There are two classes of exemptions for clearing permits:

- (i) exemptions in the Environmental Protection (Clearing of Native Vegetation) Regulations 2004, which provide for routine, day-to-day activities that have a low impact and are located outside of environmentally sensitive areas; and
- (ii) exemptions in schedule 6 of the *Environmental Protection Act 1986*, which provide for clearing that is a requirement of another written law or that is approved under another process where clearing impacts have been considered.

The latter class of exemptions includes clearing in accordance with a subdivision approval, development approval or planning approval that is consistent with an assessed scheme. These exemptions assume that clearing impacts were considered through the land zoning (scheme amendment) process. Therefore, it is imperative that local governments, the DoP/WAPC and the DEC/EPA seek to address biodiversity conservation through land use planning.

Notwithstanding the provisions set out under schedule 6 of the *Environmental Protection Act 1986*, exemptions in the clearing regulations do not apply in environmentally sensitive areas.

These areas are declared by notice under section 51B of the Act, and are defined in the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*:

- (a) a declared world heritage property as defined in section 13 of the *Environment Protection and Biodiversity Conservation Act 1999*;
- (b) an area that is registered on the Register of the National Estate, because of its natural value, under the Commonwealth's *Australian Heritage Council Act 2003*;
- (c) a defined wetland and the area within 50 metres of the wetland;
- (d) the area covered by vegetation in 50 metres of rare flora, to the extent to which the vegetation is continuous with the vegetation in which the rare flora is located;
- (e) the area covered by a threatened ecological community;
- (f) a Bush Forever site listed in *Bush Forever Volumes 1 and 2 (2000)*, published by the WAPC, except to the extent to which the site is approved by the WAPC to be developed;
- (g) the areas covered by the following policies:
 - (i) the *Environmental Protection (Gnangara Mound Crown Land) Policy 1992*;
 - (ii) the *Environmental Protection (Western Swamp Tortoise) Policy 2002*;
- (h) the areas covered by the lakes as defined by the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992*;
- (i) protected wetlands as defined in the *Environmental Protection (South-West Agricultural Zone Wetlands) Policy 1998*;
- (j) areas of fringing native vegetation in the policy area as defined in the *Environmental Protection (Swan and Canning Rivers) Policy 1998*.

The *Environmental Protection Act 1986* establishes offences in relation to unauthorised clearing of native vegetation, including contravention of clearing permit conditions (section 51J), unlawful clearing (section 51C) and material or serious environmental harm (sections 50A and 50B). Responses to clearing offences include written warning, Supreme Court injunction preventing unlawful clearing from continuing, issue of a vegetation conservation notice, revocation or suspension of a clearing permit, or prosecution (with substantial financial penalty). Under section 70 of the *Environmental Protection Act 1986*, for example, the DEC is able to issue a vegetation conservation notice to any landowner or occupier, in order to ensure that no unlawful clearing or further unlawful clearing is undertaken. If unlawful clearing has taken place, the vegetation conservation notice may require the landowner or occupier to repair any damage caused by the clearing, including the re-establishment and maintenance of vegetation to its pre-clearing condition. Importantly, a vegetation conservation notice is registered on the title of the land to which it applies, and its requirements are binding on each successive owner or occupier of that land.

If the DEC's chief executive officer makes a decision to grant a clearing permit for an application, conditions may be imposed on that permit in accordance with section 51H of the *Environmental Protection Act 1986* for the purposes of preventing, controlling, abating or mitigating environmental harm or offsetting the loss of the cleared vegetation.

A review of the State's native vegetation clearing legislation (the *Environmental Protection Act 1986* and Environmental Protection (Clearing of Native Vegetation) Regulations 2004) is currently being undertaken, with the aim of improving processes and environmental outcomes. Information on the review, as well as clearing permit application forms, guidelines, fact sheets, and the interactive clearing permit reports system and native vegetation map viewer are available online at <<http://www.dec.wa.gov.au/content/view/2920/1781/>>. The map viewer is a

particularly useful tool for land use planning, as it indicates environmentally sensitive areas in Western Australia.

7.4.4 EPA policies on biodiversity conservation

Position on the protection of native vegetation in Western Australia

EPA Position Statement No. 2 *Environmental Protection of Native Vegetation in Western Australia* provides an overview of the EPA's position on the clearing of native vegetation in Western Australia, with particular reference to clearing in the agricultural area (figure 13). The EPA's position is that clearing of native vegetation from agricultural areas in the South-West should not continue, other than relatively small areas and where alternative mechanisms for biodiversity protection are addressed. In relation to clearing of native vegetation in other areas of the State, the EPA expects the State Government to take account of the principles and objectives of the *National Strategy for the Conservation of Australia's Biological Diversity* prior to making decisions in relation to proposals.

The EPA's position on protection of native vegetation relates to three key policy areas:

- (i) clearing in the agricultural area for agricultural purposes;
- (ii) clearing in the agricultural area where alternative mechanisms address biodiversity; and
- (iii) clearing in other areas of Western Australia.

Position Statement No. 2 *Environmental Protection of Native Vegetation in Western Australia* outlines key criteria being applied in states where clearing is still occurring, including (i) 30 per cent of the original extent of each vegetation type is regarded as the threshold level below which species loss appears to accelerate exponentially at an ecosystem

level; and (ii) 10 per cent of the original extent of each vegetation type is regarded as the level representing endangered. The position statement also states that the Commonwealth has indicated that, for a state such as Western Australia with known and predictable salinity problems occurring in a very short time after clearing, it would be difficult to defend clearing in areas known to be susceptible to salinisation.

It is important to note that the major regional centres of Geraldton and Albany are included in the agricultural area defined by the EPA. According to Position Statement No. 2, clearing in these areas would only be supported by the EPA where alternative mechanisms address biodiversity. EnviroPlanning has provided funding through its Local Government Partnership Program to undertake regional flora and vegetation surveys for the Geraldton and Albany regions in 2008 and 2009. These projects aim to map and describe vegetation associations for the Geraldton and Albany regions in order to assist the DoP/WAPC and local governments with land use planning, and the DEC/EPA with environmental impact assessment of schemes and proposals that impact on native vegetation. The three key policy areas of the EPA's position on protection of native vegetation are as follows.

Clearing in the agricultural area for agricultural purposes

- Further reduction in native vegetation through clearing for agriculture cannot be supported.
- All existing remnant native vegetation should be protected from passive clearing.
- All existing remnant native vegetation should be actively managed by landholders and managers so as to maintain environmental values.
- Development of revegetation strategies at a landscape level, including provision of stepping stones, linkages and corridors of native vegetation, should be a priority.
- Non-native deep-rooted crops should be planted on already cleared land.

Clearing in the agricultural area where alternative mechanisms address biodiversity

In exceptional circumstances, the EPA could consider supporting clearing in the agricultural area if:

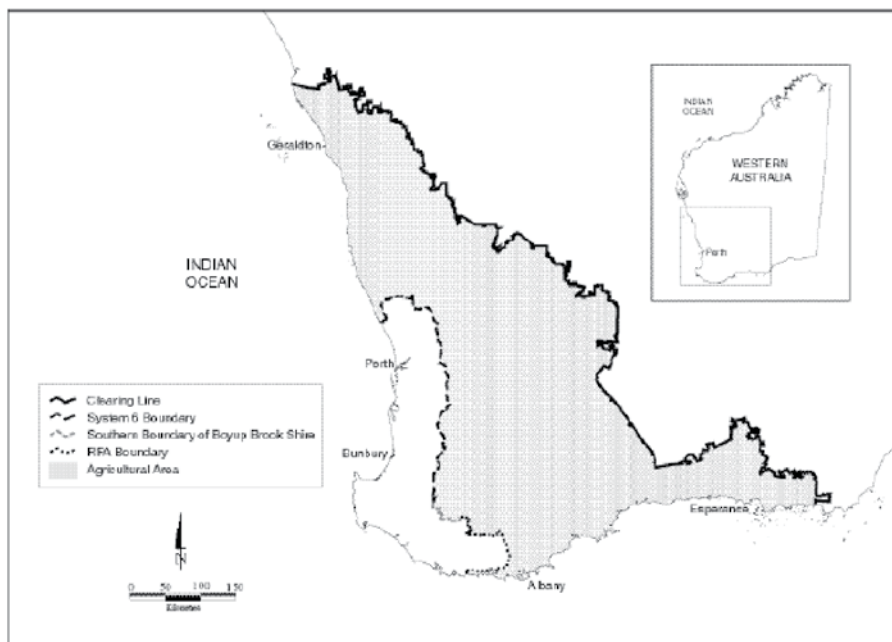


Figure 13: Western Australia's agricultural area in EPA Position Statement No. 2 (EPA, 2000)

- the proposed land use addresses alternative mechanisms for protecting biodiversity;
- the area proposed for clearing is relatively small;
- the proposal demonstrates that it meets the basic elements of biodiversity conservation; and
- on-site and off-site land degradation would not be exacerbated.

Clearing in other areas of Western Australia

In assessing a proposal, the EPA's consideration of biodiversity will include the following:

- A comparison of development scenarios, or options, to evaluate protection of biodiversity, and demonstration that all reasonable steps have been taken to avoid disturbing native vegetation.
- No known species of plant or animal is caused to become extinct as a consequence of the development and the risks to threatened species are considered to be acceptable.
- No association or community of indigenous plants or animals ceases to exist as a result of the project.
- There would be an expectation that a proposal would demonstrate that the vegetation removal would not compromise any vegetation type by taking it below the threshold level of 30 per cent of the pre-clearing extent of the vegetation type.
- Where a proposal would result in a reduction below the 30 per cent level, the EPA would expect alternative mechanisms to be put forward to address the protection of biodiversity.
- There is comprehensive, adequate and secure representation of scarce or endangered habitats in the project area

and/or in areas which are biologically comparable to the project area, protected in secure reserves.

- If the project area is large, it should include a comprehensive and adequate network of conservation areas and linking corridors whose integrity and biodiversity is secure and protected.
- The on-site and off-site impacts of the project are identified and the proponent demonstrates that these impacts can be managed.

Guidance for protection of native vegetation on the southern Swan Coastal Plain

EPA Guidance Statement No. 10 *Level of Assessment for Proposals Affecting Natural Areas In the System 6 Region and Swan Coastal Plain Portion of the System 1 Region* provides guidance for schemes and proposals potentially impacting on regionally significant natural areas in the System 6 region and Swan Coastal Plain portion of the System 1 region (figure 14). The guidance statement was developed because the Swan Coastal Plain is the focus for the largest number of development proposals brought to the EPA for assessment of environmental impacts. Much of the Swan Coastal Plain is altered to such an extent that all remnant vegetation from many of the vegetation complexes is regionally significant and in need of retention and some level of protection. It is important to note that the quality of information on regional biodiversity, and the level of guidance provided by the EPA for biodiversity conservation, is not available for other areas of the State.

Guidance Statement No. 10 is concerned with proposals to clear or significantly impact on native vegetation or natural areas of regional significance, where this cannot be addressed under other processes, such as applications for clearing of native vegetation managed under the *Environmental Protection Act 1986*. Locally significant natural areas and areas covered by

the Regional Forest Agreement for the South-West Forest region of Western Australia, are outside the scope of the guidance statement. The EPA expects that schemes or proposals impacting on locally significant natural areas in System 6 and the Plain portion of System 1 will be dealt with in a manner that is consistent with the intent of the actions in Bush Forever regarding locally significant bushland.

According to Guidance Statement No. 10, regionally significant natural areas include:

- the Conservation Estate (under the care and control of the Conservation Commission and managed by the DEC);
- System 6 recommendations;
- Swan Coastal Plain portion of System 1 recommendations;
- Bush Forever sites and vegetation complexes where 10 per cent or less remains vegetated in the Bush Forever study area or 10 per cent or less is

protected for conservation purposes in the Bush Forever study area;

- other regionally significant natural areas outside the Bush Forever study area (refer to strategy and criteria contained in appendix 3 to Guidance Statement No. 10);
- wetlands in *A Directory of Important Wetlands in Australia* (Environment Australia, 2001) or conservation category wetlands identified in the DEC's Geomorphic Wetlands Swan Coastal Plain dataset;
- areas identified by the EPA as threatened or poorly reserved plant communities outside the Bush Forever study area
- areas classified by DEC as threatened ecological communities; and
- areas containing threatened species.

There is a common misconception amongst planners, particularly in the Perth metropolitan



Figure 14: Area covered by EPA Guidance Statement No. 10 (EPA, 2006)

region, that all regionally significant natural areas are protected (in Bush Forever sites, regional parks or the Conservation Estate) and all other natural areas are simply locally significant. The fact is many natural areas that exist outside protected areas (referred to as local natural areas) meet the State Government's criteria for regional significance. Local governments across the South-West are developing local biodiversity strategies to improve the conservation of these local natural areas through land use planning processes.

Guidance Statement No. 10 states that the target for retention of 30 per cent of the original extent of each vegetation type (established in the *National Objectives and Targets for Biodiversity Conservation 2001-2005* and in EPA Position Statement No. 2) may be modified to a 10 per cent target for constrained areas. The EPA defines constrained areas as urban, urban deferred and industrial zoned land, and land with development approvals in the Bush Forever study area (Swan Coastal Plain portion of the Perth metropolitan region) and the Greater Bunbury region, but expects that these areas will be determined in conjunction with the DoP. The modified target is problematic in that the proportion of constrained areas increases as additional land is zoned for urban or industrial purposes, so the amount of natural area to be retained decreases. Furthermore, some DEC officers have advised that it is generally accepted that Bush Forever meets the 10 per cent target for Perth, despite the fact that Bush Forever failed to achieve the 10 per cent protection target for all vegetation complexes (including vegetation complexes that have been cleared below 10 per cent of the original extent on the eastern side of the Swan Coastal Plain, and vegetation complexes that exist mainly on private property so were not adequately protected through Bush Forever).

Environmental offsets

EPA's policies on environmental offsets include Position Statement No. 9 Environmental Offsets, Guidance Statement No. 19 *Environmental Offsets and Environmental Protection Bulletin*

No. 1 Environmental Offsets – Biodiversity. Environmental offsets are positive actions that aim to conserve certain values to compensate for the loss of similar values arising from necessary development, with an aspirational goal of achieving a net environmental benefit. Offsets are not a mechanism to be negotiated during the assessment of a proposal, and should not be used as a trade-off to make an unacceptable proposal appear to be acceptable. The requirement for offsetting and the nature of the offset required is determined once assessment of the impacts of a proposal is complete.

Activities associated with restoring and rehabilitating land directly impacted by development are considered to be necessary on-site environmental management requirements, whereas offset activities are usually undertaken outside the area where the impact occurs (ie off-site). Ideally, the environmental values of the offset site should be similar to those being impacted – a concept referred to as 'like for like'.

In accordance with EPA policies, an environmental offset package should include direct and contributing offsets, in order to achieve a net environmental benefit. Suitable offset activities include:

- direct offsets: restoration, rehabilitation, re-establishment, or acquiring land for conservation; and
- contributing offsets: protection, removal of threats, management, education, research, or other activities.

Acquiring land for conservation (direct offset) and protection (contributing offset) would seem to be two offset activities that are relevant to biodiversity conservation through land use planning. The policy definition of acquiring land for conservation refers only to purchasing an offset and transferring the land title into the conservation estate. Also, the definition of protection in the EPA's offset policies does not relate to the formal protection of land for conservation, but protecting the environment

from threats or harm by using barriers or buffers to the offset site (eg through fencing of ecosystems). Therefore, the formal protection of land for conservation involving means other than transferring land into the conservation estate – such as reservation or zoning under a planning scheme, or conservation covenanting on private properties – are not explicitly recognised in the EPA's offset policies.

It also appears that the EPA's offset policies prioritise activities such as rehabilitation and re-establishment of degraded areas off-site (direct offsets) over the management of intact natural areas (contributing offsets). Rehabilitation has limited benefit to biodiversity when compared with formal protection and management of intact natural areas. In order to improve outcomes from environmental offsets to clearing, it is suggested that local governments work towards the strategic identification of offset sites (eg through a local biodiversity strategy), which could potentially act to consolidate offset requirements for multiple projects into a few high-priority natural areas. It is also suggested that the EPA should broaden the application of its offset policies to achieve formal protection and management of intact natural areas ahead of rehabilitation of degraded land, by way of scheme reservation, zoning, covenanting and preparation and implementation of management plans.

Environmental guidance for planning and development

The protection of Western Australia's biodiversity is one of the EPA's priority areas of concern. The EPA's broad principles for maintaining biodiversity and protecting native terrestrial vegetation and flora include:

- avoid clearing
- maintain biodiversity at sustainable levels
- conserve biodiversity in situ
- prevent loss of biodiversity
- prepare and implement regional strategies for biodiversity protection

- protect ecological linkages
- anticipate threats to biodiversity and
- reintroduce native vegetation.

Part B of EPA Guidance Statement No. 33 *Environmental Guidance for Planning and Development* provides guidance for biodiversity conservation through land use planning. It states the EPA's objectives as:

- Biodiversity conservation – to maintain the abundance, diversity, geographic distribution and productivity of all life forms through the avoidance or management of adverse impacts and improvement in knowledge.
- Flora and fauna – to maintain the abundance, diversity, geographic distribution and productivity of flora and fauna at the species and ecosystem levels through the avoidance or management of adverse impacts and through improvement in knowledge.

Guidance Statement No. 33 lists the natural areas that the EPA considers are of high conservation significance, including critical environmental assets and high value environmental assets, that require a high level of protection in Western Australia. The EPA is unlikely to recommend the approval of projects that have significant adverse impacts on these natural areas:

- state and regional conservation areas
- areas where clearing would be at variance with clearing principles (schedule 5 *Environmental Protection Act 1986*)
- ecological communities
- significant flora and fauna
- wetlands and buffers
- rivers and foreshores
- landscape and landforms
- natural areas of heritage significance
- other natural areas as accepted by the EPA.

The guidance statement recommends that structure plans, planning schemes and policies incorporate objectives to protect biodiversity, and include measures to protect high value natural areas and ensure appropriate management of natural resources outside conservation areas. It also states that decision-making on subdivisions, land uses and developments should reflect any comprehensive and accredited strategies that address biodiversity protection, avoid unacceptable adverse impacts on regional and local biodiversity, and consider the revegetation of cleared land.

Guidance Statement No. 33 provides detailed advice and checklists on identifying, protecting and managing natural areas at each level of planning (broad-scale, local area and development). Although comprehensive, the information contained in the guidance statement may seem overwhelming to planners, even those with environmental science backgrounds. In particular, it does not provide adequate guidance on determining priorities for environmental planning; rather, it provides advice on many different environmental considerations for land use planning. Regional strategic NRM planning workshops for each of the DoP planning regions (a recommended action of this directions paper) should assist in determining priority biodiversity assets and conservation issues, which can then be addressed through the preparation of planning strategies, schemes and structure plans.

Environmental Bulletins on native vegetation in the Geraldton and Peel Regions

EnviroPlanning has assisted the EPA with the preparation of two Environmental Protection Bulletins:

- Environmental Protection Bulletin No. 10 – Geraldton Regional Flora and Vegetation Survey (May 2010)
- Environmental Protection Bulletin No. 12 – Swan Bioplan Peel Regionally Significant Natural Areas (December 2010).

State NRM funding was provided through EnviroPlanning to undertake the Geraldton Regional Flora and Vegetation Survey, and to finalise the Swan Bioplan project for the Peel region.

Implications of Environmental Protection Authority policies for land use planning

EnviroPlanning's review of the *State Planning Framework* from an NRM perspective identified that, although the EPA has many policies, position statements and guidance statements on NRM, these documents mainly outline what the EPA considers to be important when making decisions through the environmental impact assessment process. Since most planning and development proposals are not subject to an assessment, the EPA's policies have limited practical application to the planning and development approvals process. In order for EPA policy and position to be considered by the planning and development approvals system, it needs to be incorporated into planning policies and strategies of the WAPC and local governments.

As outlined in section 7.4.6, policies on biodiversity conservation consistent with the EPA's position have been incorporated into the State Planning Framework. Some gaps remain and should be addressed through future development and review of state planning policies and associated guidelines. Implementation of EPA and WAPC policy on biodiversity conservation will continue to be a challenge, unless there is a move toward establishing whole-of-government commitment and involvement in the issue, supported by adequate resources to integrate biodiversity considerations into land use planning at the regional and local levels.

7.4.5 Planning and Development Act 2005

As outlined in section 2.2.1, the *Planning and Development Act 2005* is the principal piece of legislation governing land use planning and

development in Western Australia. The main purposes of the Act are to:

- (i) establish the WAPC;
- (ii) provide for the preparation of state planning policies, region planning schemes and local planning schemes;
- (iii) control subdivision and development; and
- (iv) provide for the acquisition of land.

Each of the land use planning instruments has the ability to significantly influence the conservation of biodiversity in Western Australia (further discussed in section 7.6).

The *Planning and Development Act 2005* establishes biodiversity as a valid planning consideration in schedule 7 Matters which may be dealt with by planning scheme, which incorporates provision for preservation and conservation matters, including:

'(2) The conservation of the natural environment of the scheme area, including the protection of natural resources, the preservation of trees, vegetation and other flora and fauna, and the maintenance of ecological processes and genetic diversity.'

These matters apply to state planning policies (section 26(3)), region planning schemes (section 34(2)), local planning schemes (section 69(1)(b)), and conditions of subdivision (section 138(2)).

Further provision for biodiversity conservation in the *Planning and Development Act 2005* relates to the preparation of state planning policy in section 27 Matters to which Commission is to have regard:

'(b) conservation of natural or cultural resources for social, economic, environmental, ecological and scientific purposes'

Biodiversity conservation through land use planning

The *Planning and Development Act 2005* provides a strong legislative basis for biodiversity conservation, comparative to the State's environmental legislation:

- Unlike the *Wildlife Conservation Act 1950* the *Planning and Development Act 2005* is not limited to the consideration of threatened species, but provides for the preservation of any vegetation, flora and fauna and the maintenance of ecological processes and genetic diversity.
- The protection of native vegetation under the *Environmental Protection Act 1986* and *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* is limited with regard to where a planning, subdivision or development approval exists, given that exemptions apply for these purposes in schedule 6 of the *Environmental Protection Act 1986*.
- Biodiversity conservation is not limited to, or dependent on, the outcomes of environmental impact assessment by the EPA, but can be achieved through regional and local planning schemes and conditions of subdivision.

As discussed in section 3.3.2, there is a common misconception amongst planners that the EPA is wholly or primarily responsible for addressing environmental matters, including biodiversity conservation, when considering land use planning proposals. The *Planning and Development Act 2005* includes biodiversity conservation as a valid planning consideration applicable to state planning policies, regional and local planning schemes, and conditions of subdivision. Therefore, it is imperative that the DoP/WAPC and local governments improve land use planning processes in order to achieve biodiversity conservation outcomes in Western Australia.

7.4.6 State planning policies on biodiversity conservation

EnviroPlanning's review of the State Planning Framework from an NRM perspective identified that biodiversity matters are addressed through the following policies:

- protection of biodiversity: *State Planning Policy 2, State Planning Policy 2.8, Development Control Policy 3.4, Planning Bulletin 69*;
- preventing or limiting vegetation clearing (and its effects on environmental values and hydrology): state planning policies 2, 2.1, 2.5, 6.1 and 6.3;
- protection of habitat from destruction and fragmentation: *State Planning Policy 2, State Planning Policy 2.8*; and
- preservation and enhancement of ecological corridors: *State Planning Policy 2, State Planning Policy 2.8, and Planning Bulletin 69*.

State Planning Framework Policy

State Planning Policy 1 *State Planning Framework Policy* provides the policy and strategy context for decision-making on land use and development in Western Australia. This policy explicitly provides for biodiversity conservation through land use planning, stipulating that planning should contribute to a more sustainable future by:

- promoting the conservation of ecological systems and the biodiversity they support, including ecosystems, habitats, species and genetic diversity;
- assisting in the conservation and management of natural resources to support environmental quality and sustainable development over the long term;
- protecting areas and sites with significant historic, architectural, aesthetic, scientific and cultural values from inappropriate land use and development;

- adopting a risk management approach which aims to avoid or minimise environmental degradation and hazards; and
- preventing environmental problems which might arise as a result of siting incompatible land uses close together.

Environment and Natural Resources Policy

Provisions for biodiversity conservation in the *Planning and Development Act 2005* are strengthened through state planning policies *Environment and Natural Resources Policy (State Planning Policy 2)* and *Draft Bushland Policy for the Perth Metropolitan Region (State Planning Policy 2.8)*.

State Planning Policy 2 is the principal policy dealing with the integration of NRM into land use planning. Part 5.5 of this policy deals specifically with biodiversity conservation through land use planning, stating that:

Planning strategies, schemes and decision-making should:

- Consider mechanisms to protect areas of high biodiversity and conservation value;*
- Seek to avoid or minimise any adverse impacts, directly or indirectly, on areas of high biodiversity or conservation value as a result of changes in land use or development;*
- Assist in establishing a comprehensive, adequate and representative conservation reserve system throughout the State;*
- Safeguard and enhance linkages between terrestrial and aquatic habitats which have become isolated, including the re-establishment of habitat corridors;*
- Assist the return of areas of high biodiversity conservation values through mechanisms, including planning controls or conservation covenants;*

- (vi) *Support the use of management plans to protect areas of high biodiversity conservation value in the long term.*

State Planning Policy 2 defines areas of high biodiversity and conservation value as, including

- DEC estate;
- biosphere reserves;
- land containing threatened flora or threatened ecological communities;
- regionally significant vegetation identified in Bush Forever;
- Ramsar wetlands;
- wetlands listed in the Directory of Important Wetlands in Australia (2001);
- Environmental Protection Policy lakes;
- world heritage sites; and
- areas formally recognised by the State Government in management plans under the *Conservation and Land Management Act 1984*, the Regional Forest Agreement 1999, regional planning strategies, EPA Systems reports, and other relevant plans and strategies.

It is important to note that *State Planning Policy 2* does not provide for the conservation of ecological communities above the 10 per cent and 30 per cent thresholds (recognised by the Commonwealth and State environmental agencies). These are provided for in *State Planning Policy 2.8* that deals specifically with bushland protection in the Perth metropolitan region. Nonetheless, many priority conservation areas that are identified in local biodiversity strategies, being prepared by local governments across the South-West, comply with *State Planning Policy 2's* definition of areas of high biodiversity and conservation value.

Bushland Policy for the Perth metropolitan region

State Planning Policy 2.8 is a key commitment under Bush Forever, which aims to provide a statutory policy and implementation

framework to address bushland protection and management issues in the Perth metropolitan region. The draft state planning policy was advertised for public comment in mid-2004, and was finalised in mid-2010.

State Planning Policy 2.8 provides policy measures for Bush Forever protection areas (as mapped by the WAPC) and local bushland (defined as all areas of native vegetation outside Bush Forever in the Perth metropolitan region). Part 5.3 local bushland of *State Planning Policy 2.8* states:

Local government should:

- (i) *Seek to prepare a local bushland protection strategy, which should:*
 - (a) *be prepared as part of a wider local biodiversity strategy (which includes an assessment of local natural areas, both vegetated and non-vegetated) or similar, where possible;*
 - (b) *be prepared as a component of a wider local planning strategy and as part of a review of a local government town planning scheme; or independent of this review and the local planning strategy where there are significant issues and pressure for land use change;*
 - (c) *be based on agreed metropolitan-wide guidelines;*
 - (d) *identify and establish processes to identify locally significant bushland sites for protection and management based on environmental, social and economic criteria; while also recognising existing approvals and commitments;*
 - (e) *identify decision-making processes and include an implementation strategy to protect those sites recommended for protection and management through a range of mechanisms;*

- (f) *be prepared in consultation with affected landowners, the broader community, the WAPC and other relevant government agencies;*
 - (g) *exclude the Conservation Commission of Western Australian-managed conservation estate and parks and recreation reserves in the Metropolitan Region Scheme; and*
 - (h) *be formally considered and endorsed by Council and the WAPC.*
- (ii) *Consider the recommendations of a local bushland protection strategy, biodiversity strategy or similar, that has been formally endorsed by Council and the WAPC, in the preparation of a local government town planning scheme and its amendments, including local planning strategies, local policies, zones and special control areas, as required.*

State Planning Policy 2.8 states that proposals and decision-making should have regard to the protection of locally significant bushland sites recommended for protection and management as part of a local biodiversity strategy that has been formally endorsed by Council and the WAPC, or prior to formal endorsement of the strategy (as an interim measure) in agreement with the WAPC, relevant government agencies and the affected landowner.

State Planning Policy 2.8 also states that there is a general presumption against the clearing of bushland containing:

- threatened ecological communities and species;
- threatened or poorly reserved plant communities;
- declared rare flora or specially protected fauna;
- conservation category wetlands and appropriate buffers;
- vegetation complexes of which less than 10 per cent of the original extent remains;

- riparian and estuarine fringing vegetation; and
- System 6 recommendation areas outside the Swan Coastal Plain portion of the Perth metropolitan region.

Limitations of State Planning Policy 2.8

EnviroPlanning's review of the *State Planning Framework* from an NRM perspective identified the following limitations of *State Planning Policy 2.8*:

- The policy identifies appropriate sources of information to implement the recommendations of Bush Forever, but limited information is provided to aid the consideration of local bushland via the planning system.
- The policy is highly complex and is written in technical terms. It is unlikely that this policy will be easily interpreted by junior planners. The information requirements to support applications are also complex and uncertain.
- There is limited guidance on how to achieve local biodiversity conservation apart from the recommendation to prepare a local bushland strategy and some additional broad measures.
- The appendix contains criteria for negotiated outcomes. It is recognised that these criteria are required to aid decision-making where the land is not proposed for acquisition by the WAPC, yet, there is no connection between the criteria and practical outcomes.
- The policy is very complex and would require training to facilitate its implementation by planning officers. It is also likely to require additional guidance for proponents to address all the steps and information necessary to support a proposal in or adjacent to a Bush Forever protection area. These reports are then likely to require specialist technical expertise to review.

Furthermore, *State Planning Policy 2.8* does not explicitly recognise that some patches of local bushland actually meet criteria for regional significance, which may limit the ability of local governments to achieve local biodiversity conservation outcomes through land use planning.

Statewide policy guidance for native vegetation protection through land use planning

Although general policy guidance for biodiversity conservation exists in *State Planning Policy 2*, and more specific guidance for the Perth metropolitan region is provided in *State Planning Policy 2.8*, policy direction for vegetation protection for other areas of the State is lacking. EnviroPlanning's review of the *State Planning Framework* identified the need for statewide policy guidance on native vegetation, possibly in the form of a state planning policy, that is clear and can be implemented, and provides direction on the conservation of regionally and locally significant natural areas. Advice from the DoP suggests that an environmental protection policy may be more appropriate than a state planning policy.

Specific guidance is also required for local biodiversity strategies – to assist local governments with preparation, the DoP with assessment, and the WAPC with endorsement. It is suggested that the following matters be addressed in planning guidance for local biodiversity strategies:

- appropriate content and format of a local biodiversity strategy, including clear explanation of what constitutes a local bushland protection strategy (referred to in *State Planning Policy 2.8*);
- definition of the agreed guidelines for identifying significant local natural areas (referred to in *State Planning Policy 2.8*), which in practice are generally accepted as the Local Government Biodiversity Planning Guidelines published by WALGA (section 7.5.1);

- mechanisms for conserving local natural areas through land use planning;
- procedures for integrating the local biodiversity strategy into the local planning strategy, scheme, policies and structure plans;
- requirements for stakeholder consultation; and
- process for consideration and endorsement of local biodiversity strategies by the WAPC, including situations where strategies may be considered and endorsed by the WAPC independent of the local planning strategy and scheme review.

It is suggested that the guidance for local biodiversity strategies be provided through future update of *Planning Bulletin 69*, and could also be incorporated into the proposed statewide guidance on native vegetation.

Recommendations and actions:

2. *In conjunction with the DEC and the Office of the EPA, investigate the need for additional policy guidance on the protection of native vegetation through land use planning.*

7.4.7 State government policies and strategies relevant to biodiversity conservation

State Planning Strategy

As outlined in section 4.1, the State Planning Strategy contains a principle relating to securing a high quality environment. Linked to the environmental principle is a strategy to prevent further loss in biodiversity, and various actions relating to biodiversity conservation, including:

'Promote the preparation of local conservation strategies by local government' by giving greater emphasis to 'retaining and managing urban bushland in the planning process and making provision for a representative reserve system in strategic plans'.

The State Planning Strategy also contains actions for each of the planning regions of Western Australia, linked to the environment and resources principle and the strategy to protect key environmental resource areas and cultural heritage, for example:

Perth region:

- *Ensure the values of urban bushland are considered in the development process.*

Peel region:

- *Identify areas which could be protected as regional open space under statutory region schemes which might not otherwise be so protected, such as pockets of remnant vegetation.*

South-West region:

- *Prevent inappropriate subdivision and development in regionally significant landscapes.*

Great Southern region:

- *Identify environmentally significant areas which should have restricted surrounding land uses reflected in town planning schemes.*

Network City

Network City is the State Government's strategic plan for the Perth metropolitan and Peel regions. *Strategy 5-3 Protect Biodiversity of Network City* includes the following actions relevant to biodiversity conservation through land use planning:

- *Establish the regional context in which planning decisions are to be made by preparing regional biodiversity strategies that focus on ecological units, including: continued support in implementing the Perth Biodiversity Project and Bush Forever; supporting local incentive schemes for private land conservation, including local rate relief as an incentive; supporting the creation of conservation zones and overlays in town planning schemes; and promoting biodiversity values in Crown reserves.*

- *Extend Bush Forever to other appropriate areas, as defined in the report on conservation reserves for Western Australia (System 6); particularly in areas where statutory region schemes assist or are proposed such as Peel and Bunbury.*
- *Implement thematic and geographic projects in support of the regional biodiversity strategies.*
- *Support priority environmental restoration initiatives, including the implementation of the Swan Region Strategy for Natural Resource Management (and other relevant regional NRM strategies) by identifying and applying funding to key projects currently not funded at Commonwealth, state or local levels but accords with the direction of Network City.*

Other strategies and actions that relate to biodiversity conservation in Network City include:

Strategy 5-2

- *As part of the target-setting process established at strategy 2-5, determine objectives, targets and management guidelines in partnership with industry and local government relating to matters such as heritage, water quality, energy efficiency, biodiversity, drainage, air quality and waste management/resource consumption.*

Strategy 5-6

- *Interlink recreational areas, environmental reserves, greenways and other natural open space areas, so as to provide a continuous and meaningful greenway from the Moore River, through the heart of the city to Busselton.*

Strategy 5-8

- *Improve coastal planning and management to maintain amenity and biodiversity values of Perth's public foreshore reserve system.*

Draft Biodiversity Conservation Strategy for Western Australia

The State Government's 2001 consultation paper on the proposed Biodiversity Conservation Act for Western Australia recognised that a biodiversity conservation strategy needs to be adopted, in order to set objectives and targets that can guide the use of the biodiversity conservation legislation. In 2007, the State Government released *A 100-year Biodiversity Conservation Strategy for Western Australia: Blueprint to the Bicentenary in 2029 (Draft)*.

Key Strategic Direction No. 5 of the draft *Biodiversity Conservation Strategy* states that improved integration of biodiversity into various policies and legislation is required, and that planning, (including planning for biodiversity, resource and land use planning) and institutional reforms should be undertaken. One of the primary actions of the strategy relevant to land use planning is the development and implementation of local government biodiversity action plans, with a target of 25 of these plans to be prepared by local governments by 2010. The target appears ambitious and relies on funding and support being provided to local governments by WALGA's biodiversity projects (section 7.5.1).

Urban Bushland Strategy

The State Government's *Urban Bushland Strategy 1995* identifies the need to conserve a target figure of not less than 10 per cent of the original extent of each of the vegetation complexes contained in not less than five separate areas. The *Urban Bushland Strategy* applies to Perth and major regional urban centres in Western Australia.

The strategy aims to provide a framework to identify and assess the ecological significance of bushland in the Perth metropolitan region; establish criteria for determining the regional or local significance of bushland; protect regionally significant bushland through a recognised reserve system; protect locally significant bushland through local government

and community initiatives; secure a balance between bushland protection and appropriate development; and encourage sound land management by government and private landowners.

Key components of the *Urban Bushland Strategy* are:

- strategic planning – establishment of an Urban Bushland Advisory Group to develop a regional bushland strategy and advise the WAPC on proposals to clear bushland;
- coordination – establishment of an inter-agency Urban Bushland Advisory Service;
- legislative and policy review – amending the *Conservation and Land Management Act 1984* to provide legal protection to regional parks, and review policy to provide flexibility for retention of bushland and encouragement of local conservation incentives;
- incentives – investigation of private land conservation incentives through the System 6 review;
- information – extension of the Perth Environment Project to selected urban areas of Western Australia and review System 6; and
- education and guidelines – development of a weed information brochure, best practice notes, management plan guidelines and a school bushland program.

The *Urban Bushland Strategy* established criteria for distinguishing between urban bushland of regional and local significance, which were based on the same factors assessed at regional and local scales (table 4). The regionally significant areas are considered the best examples of their given type, and are therefore the focus for State Government efforts in urban bushland conservation. Local government was therefore given the responsibility for protecting locally significant bushland. The *Urban Bushland Strategy* states that local governments are to prepare local

Regionally significant	Locally significant
*Example of regional vegetation type which is threatened or poorly reserved or a site with special value for flora or fauna conservation	One of the better examples of a local vegetation type
*Having considerable biodiversity or supports a population of Declared Rare Flora, priority listed flora or threatened fauna	Having biodiversity value but unlikely to include Declared Rare Flora. May include geographically significant species at the limit of their range.
*Vegetation in good condition or better. Threatened vegetation types may be regionally significant even if in poor condition.	Vegetation may be in poor condition but if poor, capable of regeneration.
*Usually greater than 20 ha but may be smaller in the case of threatened or poorly reserved vegetation types, or areas with special significance for other purposes.	Ideally greater than 4 ha but smaller areas may be of significance depending on how much remains in the locality.
Suitable for passive recreation by people from both within and beyond the locality.	Suitable for passive recreation by the local community.
Regional use or potential for scientific or educational study.	Use or potential for use by local schools.
Having cultural heritage values of a regional or greater significance.	Having local heritage value.
Regular shape is desirable unless the area functions as a significant corridor linking other remnants.	Shape not critical but remnant should be capable of ongoing management.

* denotes essential criteria for bushland to be regarded as regionally significant

Table 4: Urban Bushland Strategy criteria for identifying regionally and locally significant bushland (Government of Western Australia, 1995)

bushland strategies or district conservation strategies and integrate these strategies into town planning schemes to have statutory effect. Importantly, this concept has since been incorporated into state planning policy on urban bushland conservation (*State Planning Policy 2.8*).

Bush Forever

Bush Forever is a whole-of-government initiative designed to identify, protect and manage regionally significant bushland on the Swan Coastal Plain portion of the Perth metropolitan region. At the time of its release, Bush Forever was heralded as a significant conservation initiative that would place Perth at the forefront of biodiversity conservation planning in

metropolitan areas (Heath, 2006). Bush Forever fulfils the Government's commitment to prepare a strategic plan for the conservation of bushland, as identified in the *Urban Bushland Strategy*, and also substantially meets the Government's commitments to the *National Strategy for the Conservation of Australia's Biological Diversity*, in that it seeks to establish a representative system of protected areas.

Bush Forever aims to protect 10 per cent of the original extent of each ecological community (vegetation complex) on the Swan Coastal Plain portion of the Perth Metropolitan region. The strategy identifies 287 sites containing 51 200 hectares of bushland for protection, equivalent to 18 per cent of the original vegetation on the Swan Coastal Plain portion

of the Perth metropolitan region. Bush Forever sites were initially selected through a systematic conservation planning process and then further refined with regard to wider social and economic values. That is to say, areas of Crown land that met the selection criteria were included as a starting point, and other areas, (including private land) were identified following a cost-benefit analysis. The Western Australian Government has committed up to \$100 million over 10 years towards the implementation of Bush Forever, primarily for land acquisition.

Bush Forever identifies areas of regional conservation significance, setting out an implementation strategy and developing creative solutions for individual sites, with the aim of bringing greater certainty to planning, environmental and development approvals processes.

The Bush Forever policy committed to:

- State Planning Policy No.2.8: Bushland Policy for the Perth Metropolitan Region.
- MRS Amendment 1082/33 – Bush Forever and Related Lands.
- Planning Bulletin 69 to introduce, explain and seek comment on the above measures.

The package of information was released for public consultation from August 2004 to 12 November 2004.

Limitations of Bush Forever

As a State Cabinet endorsed policy, Bush Forever carries considerable weight in planning and decision-making processes for the Perth metropolitan region. Some key problems of the initiative have been encountered, including:

- the State's planning agency is primarily responsible for the implementation of Bush Forever, which enables acquisition and protection of bushland, but limits effective on-ground management of sites;
- Cabinet's allocation of \$100 million to Bush Forever was insufficient to allow

acquisition of all Bush Forever sites, and has therefore affected some private land owners;

- some private properties are designated as Bush Forever sites but not conservation reserves, therefore preventing opportunities for government acquisition yet restricting use of land;
- Bush Forever failed to achieve the 10 per cent protection target for some vegetation complexes (mainly because it was too expensive or difficult), so the protection of some regionally significant natural areas is now the responsibility of local government;
- there is a common misconception amongst planners that all regionally significant natural areas have been identified and are protected through Bush Forever;
- Bush Forever sites reserved for parks and recreation under the Metropolitan Region Scheme are afforded a high level of protection, but other Bush Forever sites do not have the same statutory protection from incompatible land use or development;
- State and local governments are responsible for on-ground management of Crown land (the majority of Bush Forever sites) so limited funding was allocated to the management of Bush Forever sites; and
- limited support has been made available to local governments for planning the protection of natural areas outside Bush Forever sites.

Implementation of Bush Forever

The original purpose of MRS Amendment 1082/33 - Bush Forever and Related Lands was to:

- create a Special Control Area (SCA) and related provisions in the Metropolitan Region Text;

- establish a SCA in the MRS over all Bush Forever sites; and
- reserve a number of Bush Forever sites for parks and recreation within the MRS

In 2006, the WAPC resolved to adopt MRS Amendment 1082/33 Report on Submissions subject to the following main modifications:

- removing the SCA provisions from the MRS text because the *Environment Protection Act 1986* (EP Act) legislated clearing controls, and it was the opinion of the WAPC that this legislation, as well as a Notice of Delegation to Local Authorities to determine Planning Applications and the implementation of *State Planning Policy No.2.8: Bushland Policy* for the Perth Metropolitan Region achieves the original objectives of the SCA provisions outlined in the MRS amendment. The WAPC also sought to keep the MRS as simple, broad and general as possible and this was the essential reason why SCAs were not kept as part of the MRS Amendment.
- renaming Bush Forever Protection Areas to Bush Forever areas, and retaining the Bush Forever areas on the MRS map as a geographical notation to alert landowners to bushland protection considerations.

These modifications do not change the original intent of Bush Forever.

The two main outcomes for the MRS Amendment are:

1. To introduce Bush Forever areas onto MRS maps; and,
2. To rezone 94 identified sites on public and private land from their existing zone or reservation to 'Parks and Recreation' reserve.

MRS Amendment 1082/33 - Bush Forever and Related Lands was approved by the WAPC, Minister for Planning and the Governor, and laid before Parliament on 22 June 2010 pursuant to s.56 of the *Planning and Development Act 2005*.

No notice of motion to disallow the amendment was given in the 12 sitting days of Parliament, and as such, the effective date of MRS Amendment 1082/33 is 15 September 2010.

The notice of delegation has been amended to require local government to refer applications for development to DEC (Clause 6). DoP and DEC are currently in negotiation for a Memorandum of Understanding (MoU) to be prepared that will outline the responsibilities of DEC.

EPA endorsement of Bush Forever

The EPA provided advice to the Minister of the Environment on aspects of Bush Forever in accordance with section 16(e) of the *Environmental Protection Act 1986* (EPA Bulletin 1007, January 2001). The EPA's preferred position is that Bush Forever be implemented in accordance with Perth's Bushplan (the State Government strategy released for public comment as the precursor to Bush Forever).

The EPA recognises that the systematic identification of regionally significant natural areas, and the mechanisms to protect these areas, is proposed to be achieved through the update of the remainder of the System 6 and part System 1 area in a similar coordinated program to Bush Forever. The EPA is of the opinion that sufficient information has been gathered to broadly identify a series of regionally important ecological linkages in the Greater Bunbury Region Scheme and adjoining areas (appendix 4 of EPA Bulletin 1108). WALGA's South West Biodiversity Project, in conjunction with the DEC/EPA and other stakeholders, has mapped regional ecological linkages in the South West.

7.5 Local biodiversity conservation

Local biodiversity conservation has been public policy since 1995 with the release of the *Urban Bushland Strategy*, followed by Bush Plan in 1998 and Bush Forever in 2000. It is only since

2004 that local governments have become particularly concerned with this issue, following the release of the *Local Government Biodiversity Planning Guidelines for the Perth metropolitan region*.

Local biodiversity conservation involves the identification, retention, protection and management of local natural areas. *State Planning Policy 2.8* refers to all bushland outside Bush Forever sites as local bushland. This definition was broadened by WALGA's Perth Biodiversity Project, to include other types of natural areas (eg wetlands, waterways, springs, rock outcrops, caves, coastal dunes and cliffs). The term local natural area is used to define any natural area that exists outside the Conservation Estate, regional parks and Bush Forever sites (Del Marco et al., 2004).

Local natural areas are an essential component of biodiversity conservation in South-West Australia. Protected natural areas could be seen to provide (in some cases) the minimum requirements or skeleton for biodiversity conservation, while local natural areas could be seen to provide the flesh that is required for the living system to function. The protection of local natural areas is important for three primary reasons (Del Marco et al., 2004):

- to maintain a basic level of natural diversity – adding to and complementing protected areas, contributing towards the retention of 30 per cent of the original extent where possible;
- to buffer and provide connectivity between protected regionally significant natural areas; and
- for benefits at the local community level, including passive recreation, sense of place, amenity, and local environmental services (eg clean air and water, productive soil).

The conservation significance of local natural areas is determined through assessment against ecological criteria developed by State and local governments. Regionally significant natural areas are defined as those natural

areas that meet, in whole or in part, a range of criteria for regional significance (appendix 3 of EPA Guidance Statement No. 10). Locally significant natural areas are defined as local natural areas that have been field assessed by a suitable expert and meet at least one of the local significance criteria determined by a local government.

Local natural areas can have significant conservation value in their own right. In the Perth metropolitan region, many local natural areas may meet ecological criteria for regionally significant bushland but were not included in Bush Forever due to the socio-economic criteria and the minimum targets used. A major limitation of Bush Forever is that some very significant areas were not protected, while other areas that were not necessarily the best ecological examples but already had some level of protection were included in Bush Forever (Del Marco et al., 2004).

7.5.1 Local government biodiversity projects

Local government has a major role in the retention, protection and management of Western Australia's biodiversity because it represents the level of government closest to the community; is responsible for the management of local reserves and other local government land; and is a key decision-maker in the land use planning system.

In 2001, local governments in the Perth metropolitan region were responsible for the management of at least 7800 hectares of native vegetation, and required to make land use planning decisions with the potential to impact on more than 75 000 hectares of native vegetation considered to be local natural areas. Approximately 58 000 hectares of these local natural areas occurred on private land, with about 8900 hectares zoned for intensive development under the Metropolitan Region Scheme (Del Marco *et al.*, 2004).

The Perth Biodiversity Project and the South West Biodiversity Project are two WALGA

initiatives that support local governments in planning for the retention, protection and management of local natural areas in South-West Australia (figure 15). The Perth Biodiversity Project commenced in 2001 and was funded primarily through the Swan Catchment Council, while the South West Biodiversity Project commenced in 2006 and was funded primarily by the South West Catchments Council. More information about the local government biodiversity projects is available from <www.walga.asn.au/about/policy/pbp> and <www.walga.asn.au/about/policy/swbp>.

A major output of the Perth Biodiversity Project was the 2004 publication of the *Local Government Biodiversity Planning Guidelines for the Perth metropolitan region*, which outline a process for the development of a local biodiversity strategy. In 2007 the South West Biodiversity Project produced the *Local Government Biodiversity Planning Guidelines: Addendum to the South West Biodiversity Project Area*, which update the guidelines for use by local governments located in the South-West NRM region.

Local Government Biodiversity Planning Guidelines

The local biodiversity planning process outlined in the Local Government Biodiversity Planning Guidelines assists local governments to:

- determine the protection status of all locally significant natural areas;
- formalise policies and processes to ensure biodiversity considerations are integrated into the assessment of development proposals and construction activities;
- provide incentives to encourage private land conservation; and
- plan for the management of local reserves and other local government land to conserve biodiversity.

The local biodiversity planning process consists of four phases:

1. Scoping the local biodiversity planning process by obtaining Council support for the process and a commitment to

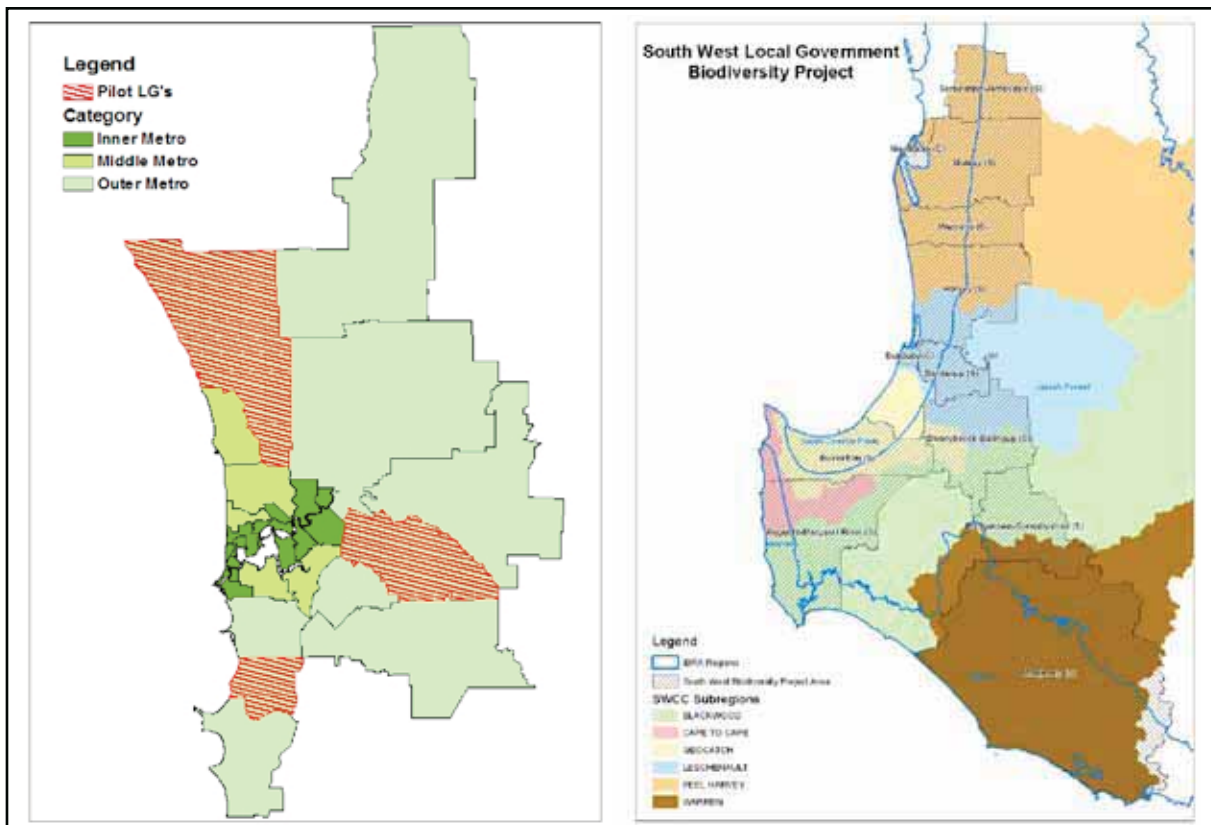


Figure 15: Perth Biodiversity Project (left) and South West Biodiversity Project areas

- undertake preparation of a discussion paper.
2. Preparation of a discussion paper to inform the community and stakeholders of the ecological values of the remaining natural areas, and to develop a vision, objectives and targets for retention, protection and management of biodiversity.
 3. Preparation of a local biodiversity strategy, including an action plan to guide the development of a local planning policy for biodiversity conservation, an incentives strategy for private land conservation, a plan for the management of local government land for biodiversity conservation, and formalisation of the protection status of locally significant natural areas.
 4. Implementation of the local biodiversity strategy through integration into Council processes, including amendment of the local planning scheme, application of the local planning policy, application of the incentives strategy for private land conservation, management of local government land, and monitoring and review of the strategy.

Local biodiversity conservation targets and criteria

One of the most important aspects of the local biodiversity planning process is the setting of targets for local biodiversity conservation. The targets act to formalise the ecological criteria that the local government will use to determine which local natural areas are significant and therefore conservation priorities. The Local Government Biodiversity Planning Guidelines provide a standardised set of ecological criteria, based on those contained in Bush Forever. The criteria were developed by state government agencies and accepted by the EPA for the identification of regionally significant natural areas for a comprehensive, adequate and representative system of conservation areas in the South-West. The ecological criteria are grouped under the following themes:

- representation of ecological communities (at the local and regional scales);
- diversity in the natural area;
- rarity of species and ecological communities;
- maintaining ecological processes or natural systems; and
- protection of wetland, streamline, estuarine fringing and coastal vegetation.

The standardised criteria have been developed to enable each local government to contribute to regional biodiversity conservation targets, while preserving local (eg genetic) diversity and sense of place. The criteria challenge local governments to retain ecological communities above thresholds that help prevent the exponential loss of species and maintain ecosystem processes (30 per cent of the original extent of each vegetation type), rather than at levels where communities are considered threatened (10 per cent of the original extent of each vegetation type).

The Local Government Biodiversity Planning Guidelines also contain guidelines for planning the long-term viability of natural areas, which local governments should take into consideration in addition to the ecological criteria. The viability guidelines promote the following:

- size – large natural areas are more viable than small natural areas;
- shape – compact natural areas are more viable than elongated natural areas;
- perimeter to area ratio – regularly configured natural areas have lower edge effects and greater core area than irregularly configured natural areas;
- condition – natural areas in good condition are more viable than degraded natural areas; and
- connectivity – natural areas in close proximity to other natural areas are more viable than natural areas isolated from other natural areas.

Other factors impacting on the viability of natural areas include:

- the type of vegetation and its ability to resist weed invasion and other disturbances;
- surrounding land uses and management of land; and
- frequency and intensity of management (eg weed control) being undertaken.

Quantitative measures for determining the viability of natural areas are suggested in the Local Government Biodiversity Planning Guidelines and these should be carefully evaluated for their suitability for application in any particular local government area. An experienced environmental scientist familiar with the local government area could advise on appropriate minimum guidelines for natural area viability.

State government agency recognition of the guidelines

As part of the State Government's commitment to implementation of Bush Forever, the DPI/WAPC and the Department of Environment provided funding and in-kind support to the Perth Biodiversity Project to develop the Local Government Biodiversity Planning Guidelines.

In written correspondence to WALGA in 2004, the chairman of the EPA and the chief executive of the Department of Environment acknowledged the following in relation to the Local Government Biodiversity Planning Guidelines:

- The guidelines have developed from, and advance local biodiversity conservation policy, beyond the approach developed in Bush Forever, reflecting the rapid advance in biodiversity conservation policy in recent years.
- The guidelines describe a consistent staged process that can be used by local governments to establish biodiversity targets and criteria, then identify biodiversity values in their areas, and use

this information to integrate biodiversity conservation into planning and decision-making processes.

- Preparation of a local biodiversity strategy will be a challenging exercise for some local governments, particularly in the outer Perth metropolitan region, due to the large areas of bushland remaining and the development expectations existing in these areas. Significant long-term social and ecological benefits would be achieved from protection of ecologically significant and viable natural areas.
- Local biodiversity strategies will reduce the amount of uncertainty for landowners and planners and make decision-making easier.
- Generally speaking, the EPA would expect that proposals that are consistent with a well prepared local biodiversity strategy developed in accordance to the guidelines, would be less likely to attract EPA assessment.
- The EPA will incorporate reference to the guidelines in future policy where relevant, and include it into existing policy when reviewed.

Importantly, the EPA supported the guidelines as an important initiative of the Perth Biodiversity Project and the Department of Environment gave its in-principle endorsement of the Local Government Biodiversity Planning Guidelines, recommending them as a significant resource for strategic biodiversity conservation by local governments.

Local government progress in biodiversity planning

Each local government has a different capacity and approach to local biodiversity conservation. Local governments may rely on the advice of consultants for local biodiversity planning, or employ environmental planners who are responsible for developing and implementing local biodiversity strategies. Also, local governments may integrate biodiversity

conservation into local planning strategies and schemes (top-down approach), or address biodiversity conservation through structure planning (bottom-up approach). The Local Government Biodiversity Planning Guidelines are referenced in EPA Guidance Statement No. 33 *Environmental Guidance for Planning and Development*.

The Perth Biodiversity Project has assisted several local governments in the Swan NRM region with the development and implementation of local biodiversity strategies:

- The Shire of Mundaring has an endorsed local biodiversity strategy which has been incorporated into the shire's draft local planning strategy and scheme.
- The Shire of Chittering has an endorsed local biodiversity strategy which is informing the review of the shire's local planning strategy.
- The Shire of Kalamunda has an endorsed local biodiversity strategy which will be considered through the preparation of the shire's draft local planning strategy.
- The Town of Kwinana has an endorsed local biodiversity strategy and has prepared a draft natural areas local planning policy.
- The City of Wanneroo and the City of Armadale have released local biodiversity strategies for public consultation.
- The City of Bayswater, the City of Belmont and the Town of Bassendean have prepared a collective local biodiversity strategy that focuses on the management of natural areas on local government land.
- The City of Rockingham has prepared a draft local biodiversity strategy.

The South West Biodiversity Project has assisted several local governments in the South-West NRM region with the development and implementation of local biodiversity strategies:

- The Serpentine-Jarrahdale Shire Council has adopted its local biodiversity strategy and has prepared a local planning policy

and incentives strategy for private land conservation.

- The City of Mandurah is updating its local biodiversity strategy in accordance with the Guidelines.
- The City of Bunbury, the Shire of Busselton and the Shire of Dardanup recently commenced preparation of local biodiversity strategies, which will guide preparation of these local governments' local planning strategies and schemes.
- The Shire of Augusta-Margaret River has prepared a draft local planning policy and scheme provisions to support private land conservation.

WALGA has received funding from the 2009-10 State NRM program through the WAPC for the continuation of Perth Biodiversity Project and extension of services north of Perth. Unfortunately, funding was not secured for South West Biodiversity Project and the project ceased in October 2009.

7.5.2 Local biodiversity strategies

A local biodiversity strategy is a strategic plan for biodiversity conservation at the local government level. It provides a process for assessing the ecological significance of local natural areas and for determining the protection of local natural areas by evaluating opportunities and constraints. The focus of a local biodiversity strategy is the retention, protection and management of significant local natural, as well as those natural areas under local government management identified in Bush Forever, or forming part of regional parks (Del Marco et al., 2004).

By preparing a local biodiversity strategy, local government will fulfil the requirements of Commonwealth and State Government legislation and policies addressing biodiversity. Importantly, a local biodiversity strategy will assist local government to integrate biodiversity conservation into core business and early in the decision-making process.

Essentially, a local biodiversity strategy comprises two main components (figure 16):

- land use planning tools, including the local planning strategy, the local planning scheme, and a local planning policy; and
- land management tools, including a local government natural areas management strategy, and an incentives strategy for private land conservation.

Many local governments have prepared a draft local biodiversity strategy in the form of a discussion paper, which usually contains the following information:

- context for biodiversity conservation in the local government area;
- value of biodiversity assets in terms of representation, diversity, rarity and function;
- land use planning opportunities and constraints to biodiversity conservation;
- Council's vision and objectives for local biodiversity conservation;
- proposed targets for retention, protection and management of local natural areas;
- preferred scenario for achieving the targets across zonings and/or precincts;
- potential strategies or mechanisms for local biodiversity conservation; and
- action plan for implementing the local biodiversity strategy.

It is necessary for local governments to extract information from draft local biodiversity strategies, (including the areas that will be affected, the proposed targets, and the mechanisms that will be used to achieve the targets in different areas), and present it in a way that is useful to the land use planning system. WALGA's Perth Biodiversity Project and South West Biodiversity Project have worked in partnership with the DoP's EnviroPlanning Project to support local governments with the development and implementation of land use planning aspects of local biodiversity strategies. Further guidance on local biodiversity conservation through land use planning at the local government level is provided in section 7.6.

Recommendations and actions:

9. *Provide support to local governments to improve the integration of NRM into land use planning:*
 - e) *Provide support to WALGA and local governments for the integration of local biodiversity strategies into local planning strategies, schemes and structure plans.*

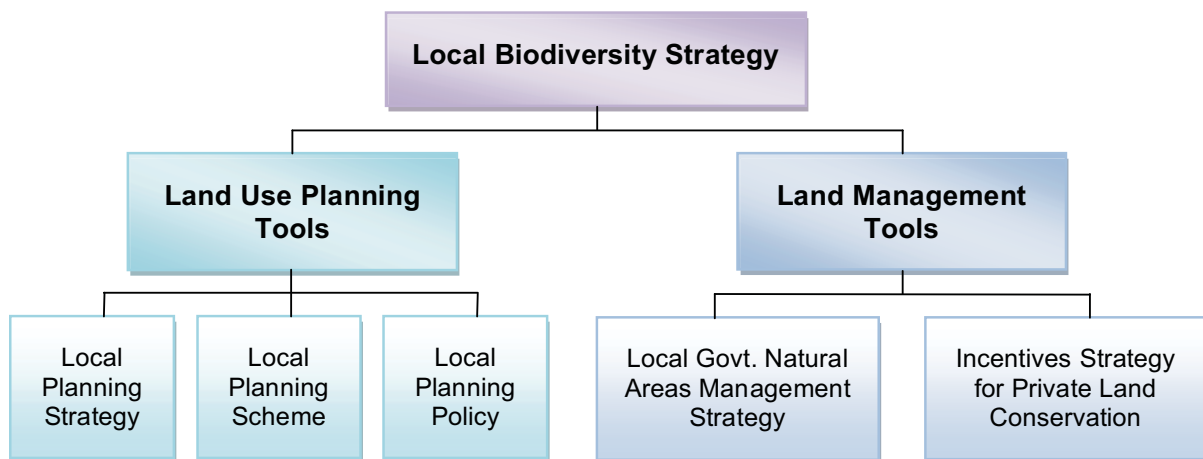


Figure 16: Land use planning and land management components of a local biodiversity strategy

Guidance for integrating local biodiversity into land use planning

Limited guidance is available for integrating biodiversity considerations and achieving conservation outcomes through land use planning at regional and local levels. *State Planning Policy 2.8* provides for local governments to prepare local bushland protection strategies as part of wider local biodiversity strategies, and states that these should be implemented through local planning strategies, local planning schemes and local planning policies. However, limited guidance has been provided to local governments for the preparation of local biodiversity strategies suitable for integration into the land use planning system.

The Local Government Biodiversity Planning Guidelines provide some guidance on the preparation and application of a local planning policy, but do not outline the preferred format and content of a local biodiversity strategy, or describe how the local biodiversity strategy should be integrated into land use planning. Also, the guidelines give little recognition to the central importance of the local planning scheme in controlling land use and development affecting local natural areas, or the role of the local planning strategy in guiding future changes to the scheme in order to achieve local biodiversity conservation.

The guidelines suggest that the local biodiversity strategy should be endorsed by Council and the WAPC, and that a local planning policy will be required to formalise the local biodiversity strategy for consideration in the land use planning system. It has been determined that the WAPC would not endorse a local biodiversity strategy *per se* – rather, relevant components of a local biodiversity strategy would be incorporated into a local planning strategy to be endorsed by the WAPC. Also, a local planning policy can only be prepared if provisions exist in the local planning scheme to support local biodiversity conservation. It may be necessary for the local government to amend its local planning scheme in order to provide for

implementation of the local biodiversity strategy through statutory planning decisions.

Despite the State's environmental agency recommending that the Local Government Biodiversity Planning Guidelines be used by local governments to prepare local biodiversity strategies (section 7.5.2), it is unclear what roles the DEC and the EPA will have in supporting local biodiversity conservation, particularly in relation to:

- assessment and endorsement of local biodiversity strategies; and
- consideration of local biodiversity strategies in assessment, advice and decision-making on clearing permit applications, environmental impact assessment, and statutory land use planning referrals.

Without the strong support of the State's environmental agency, local governments may find it difficult to negotiate with landowners and the DoP/WAPC on land use planning and development proposals affecting local natural areas identified in local biodiversity strategies.

Recommendations and actions:

7. *Improve State agency engagement in land use planning:*
 - g) *Clarify the roles of DEC and the EPA in supporting local biodiversity conservation, including formal consideration and possible endorsement of local biodiversity strategies.*

7.6 Opportunities for biodiversity conservation through land use planning

There are various opportunities for biodiversity conservation to be addressed through strategic and statutory planning at the regional and local

levels. Importantly, biodiversity conservation should be addressed early in the land use planning process and carried through each stage of planning to on-ground management. Consideration should be given to the identification of significant natural areas and incorporation of relevant policies or provisions for biodiversity conservation in planning strategies, schemes and development plans at the regional and local levels (figure 17).

It is a common misconception among NRM professionals that state planning policies and local planning policies are the most important tools for achieving biodiversity conservation through land use planning. Planning policies provide important guidance, but planning schemes provide the statutory basis for decision-making on land use, subdivision and development. Provisions for biodiversity conservation must be incorporated into local planning schemes if effective biodiversity conservation outcomes are to be achieved.

Regional planning for biodiversity conservation

Planning for biodiversity conservation at the regional level allows for biodiversity values to be considered across the extent of a natural region (for example a biogeographic region, figure 10). Setting the scene for biodiversity conservation at the regional scale means that guidance is provided for later stages of the land use planning process, and is more likely to contribute towards achieving regional biodiversity conservation outcomes. Ideally, targets should reflect ecological requirements, but resources have largely not been available to undertake this work at a regional level in South-West Australia. Regional information on biodiversity is limited to the area of the Swan Coastal Plain south of Moore River, and the study area of the Regional Forest Agreement in the South-West, which makes it difficult for State and local governments to effectively plan for biodiversity conservation in other areas of the State.

Regional planning initiatives that aim to address biodiversity conservation in South-West Australia include:

- The South West Australia Ecoregion Initiative, a systematic conservation planning project for the global biodiversity hotspot, funded by the Commonwealth and State Governments and coordinated by the World Wildlife Fund in partnership with the DEC and other agencies and organisations (see <www.swaecoregion.org> for more information).
- Regional flora and vegetation surveys for Geraldton and Albany, partly funded through the EnviroPlanning Local Government Partnership Program, which aim to map and describe regional vegetation associations to assist local government, the DoP/WAPC and the DEC/EPA with land use planning and environmental assessment.
- A regional framework for local biodiversity conservation priorities for Perth and Peel, which is being prepared by WALGA through 2009/10 State NRM program funding allocated to the WAPC.
- The South-West Framework, prepared by the DoP/WAPC to guide land use and development in the South-West planning region, which includes strategies and actions relating to biodiversity conservation. Most notably, it sets an aspirational goal of no net loss of native vegetation for the South-West planning region. Biodiversity is also being addressed in the Greater Bunbury Region Strategy.
- The *Draft Wheatbelt Land Use Planning Strategy* (WAPC 2011), which includes a map showing regional priorities for local natural area conservation. The prioritisation of local natural areas was undertaken by the Perth Biodiversity Project and is based on native vegetation extent, Beard vegetation associations, occurrence of threatened species and communities, wetlands, and the size of vegetation patches.

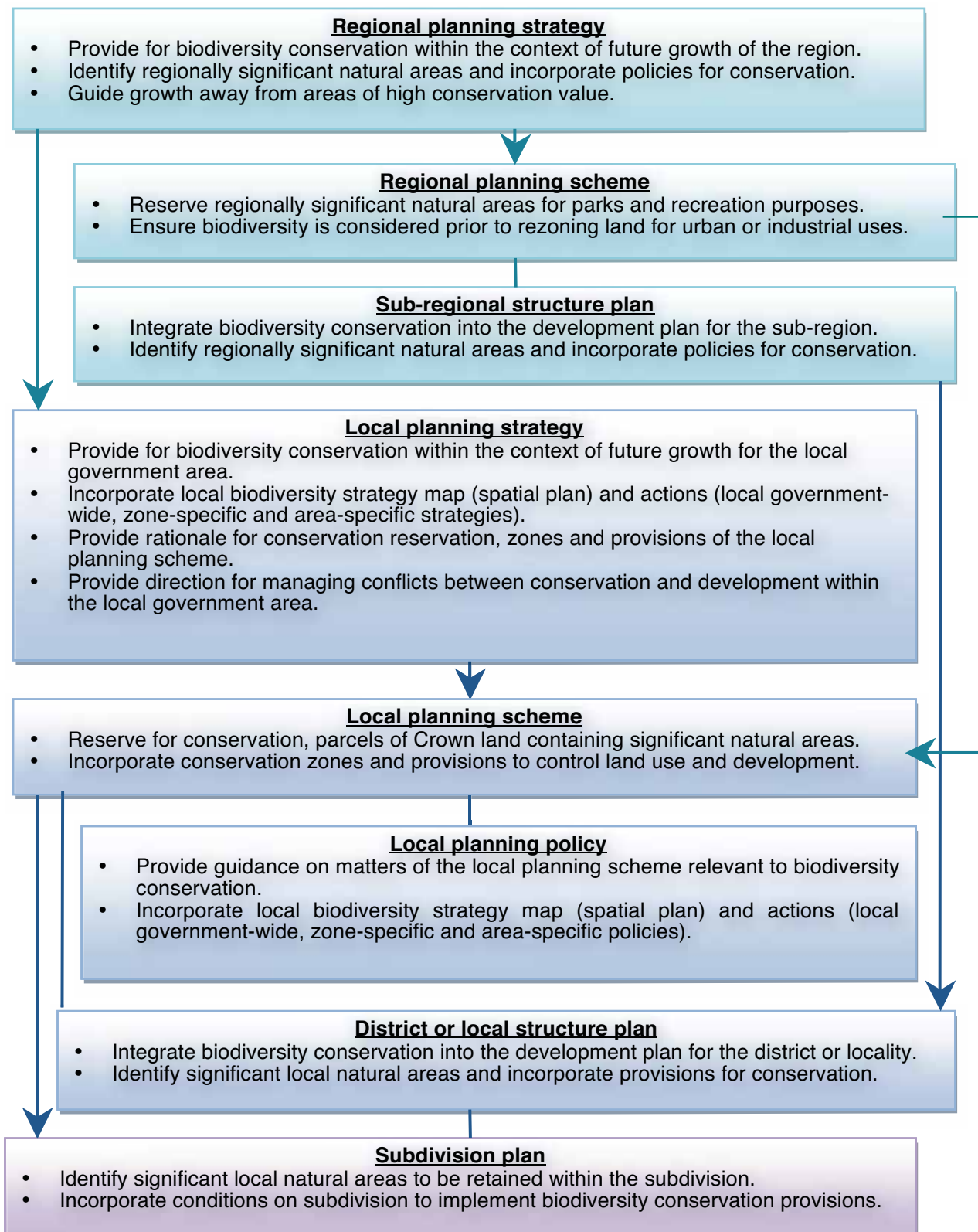


Figure 17: Biodiversity conservation should be addressed at different levels of land use planning

- The South West Regional Ecological Linkages project, coordinated by the South West Biodiversity Project in partnership with the DEC, which aims to map natural areas comprising ecological linkages across South-West Australia.

Regional and sub-regional strategies and plans may be prepared by the DoP/WAPC, to identify areas for future growth and guide more detailed land use planning by local governments. It is important for biodiversity considerations to be integrated into regional strategic planning processes, through the identification of regionally significant natural areas and incorporation of policies for conservation. Regional strategic planning provides important direction to local governments so that biodiversity conservation can be addressed in the context of future growth in the local planning strategy.

As explained in section 4.3, region planning schemes control land use zoning and reservation in the Perth Metropolitan, Peel, and Greater Bunbury regions. Conservation of regionally significant natural areas may be achieved through reservation under the region schemes and acquisition by the State Government for inclusion in the public reserves system. Region planning schemes probably have the most significant impact on biodiversity through the designation of areas for future land use (eg urban, industrial, rural), which determines the constraints and opportunities for conservation. Even prior to the rezoning of land, it may be difficult to achieve effective conservation outcomes if biodiversity considerations have not been incorporated into previously prepared regional strategies or plans.

Changes to the region schemes (eg rezoning of land from rural to urban) are guided by regional strategic plans, such as the Southern Metropolitan and Peel Sub-regional Structure Plan, and the Greater Bunbury Structure Plan. Implementation of the WAPC's recommendations and the environmental conditions for the Peel and Greater Bunbury region schemes would assist in achieving effective biodiversity conservation outcomes.

Peel Region Scheme

EPA Bulletin 994 contains advice and recommendations of the EPA in relation to the Peel Region Scheme. A key recommendation was that a strategy to conserve regionally significant vegetation (a natural areas strategy) be prepared and implemented by way of future amendment to the Peel Region Scheme, as a matter of priority. The EPA also endorsed the WAPC's recommendations that a System 6 update or bushplan be prepared to determine which bushland areas should be reserved as regional open space, that a management plan be prepared for the Peel Region Park as a matter of high priority, and that consideration be given to the preparation of a Strategic Waterways and Wetlands Resource Policy for the Peel Region Scheme. It is unclear whether any of these recommendations have been implemented in the eight years since the region scheme was assessed by the EPA.

The environmental conditions for the Peel Region Scheme relevant to biodiversity conservation include a requirement for biological survey to be undertaken prior to rezoning land where there is a potential to impact on regionally significant vegetation, and a requirement for preparation of environmental management plans to accompany rezoning or subdivision of land in the Lake Clifton catchment. It is assumed that the results of the biological survey would influence land use planning, but this is not explicitly stated and may limit biodiversity conservation outcomes.

Bunbury Region Scheme

EPA Bulletin 1108 contains advice and recommendations of the EPA in relation to the Greater Bunbury Region Scheme. As part of its formal assessment of the region scheme, the EPA prepared a Natural Areas Strategy to identify regionally significant natural areas for the Swan Coastal Plain portion of the scheme area. The EPA recognises that the following

policy statements apply to the Greater Bunbury region:

- The general protection of native vegetation on the Swan Coastal Plain in the Greater Bunbury region should be achieved through the preferential location of developments in cleared areas.
- At least 10 per cent of the pre-clearing extent of each ecological community in the constrained area on the Swan Coastal Plain portion of the Greater Bunbury region should be retained.
- There is a presumption that all areas of native vegetation containing threatened ecological communities or vegetation of the major landform elements of which less than 10 per cent currently remains on the Swan Coastal Plain will be retained and conserved in the Greater Bunbury region.
- Planning for the restoration of ecological communities and landscape rehabilitation should occur for areas between and around selected sequences of the small remaining patches of native vegetation on the eastern side of the Swan Coastal Plain in the Greater Bunbury region.

The environmental conditions for the Greater Bunbury Region Scheme relevant to biodiversity conservation include: a requirement for environmental management plans to be prepared for all schemes, subdivisions and developments; additional areas to be reserved for conservation under the region scheme; and a requirement for biological survey, (including survey for threatened species and ecological communities), to be undertaken as part of a scheme amendment or application to subdivide or develop land that has the potential to impact on regionally significant native vegetation or fauna. The wording of EPA conditions for the Greater Bunbury Region Scheme is an improvement on those of the Peel Region Scheme. It is unclear

whether these conditions are consistently applied through land use planning by the DoP/WAPC and local governments.

Local planning for biodiversity conservation

As explained in section 4.4, the local planning scheme controls land use and development, the local planning strategy guides the way that the scheme will change over time, and local planning policies provide guidance on specific matters of the scheme. Ideally, biodiversity considerations should be incorporated into all of these planning tools, and the different tools should be used together to carry biodiversity conservation through each stage of the land use planning process.

Local governments must establish their specific conservation and development objectives before they determine how to best use the land use planning system to protect natural areas. A local government may simply incorporate provisions relating to biodiversity conservation into the local planning scheme, but the preparation of a local biodiversity strategy and integration into the local planning strategy provides a strong basis for decision-making on future land use and development affecting local natural areas. Implementation of biodiversity conservation may continue to occur at the lot level via individual planning applications and subdivisions, but there should be a clear overall strategic plan for the conservation of local natural areas in terms of retention, formal protection, active management, and restoration or re-establishment.

7.6.1 Local planning strategies

As explained in section 4.4, the local planning strategy is a key strategic planning document adopted by local government and endorsed by the WAPC. The local planning strategy sets out the general aims and intentions for future long-term growth and change (eg 10-15 years) for the local government area, and provides the rationale for the zones and other provisions

of the local planning scheme. According to clause 2.1 of the Model Scheme Text Provisions contained in the Town Planning Amendment Regulations 1999, determinations of the local government under the scheme are to be consistent with the local planning strategy, giving it special significance as a relevant consideration for local government, WAPC and the Minister for Planning in making planning decisions and for appeal bodies in determining appeals.

The local planning strategy places particular emphasis on appropriate use and development of land, and minimisation of potential land use conflicts in the local government area. Importantly, the local planning strategy provides an opportunity for an integrated approach to planning at the State and local levels, including consideration of social, environmental and economic aspects with links to the local government's corporate plan.

Local biodiversity strategy component of local planning strategy

Local governments are being encouraged to prepare a local biodiversity strategy that includes:

- a map that clearly identifies local natural areas that will be targeted for conservation on particular parcels of land, or in planning precincts or policy areas based on structure plans (figure 18); and
- Information on the local biodiversity conservation targets applicable to different zones or areas of the local government, and the strategies or mechanisms that will be used to achieve the targets in these zones or areas.

It is suggested that the local biodiversity strategy map could be prepared in accordance with the following process:

1. Potentially significant local natural areas – areas identified, through desktop assessment and rapid field assessment (eg drive-by), as meeting essential criteria for conservation significance.

2. Planning constraints – areas already committed to development through zoning, subdivision potential and structure plans, and therefore cannot be, to a considerable extent, retained or protected for conservation.
3. Conservation opportunities – potentially significant local natural areas and planning constraints overlaid to identify areas that will be targeted for conservation.

It is expected that the local biodiversity strategy would include enabling strategies, such as the introduction of a conservation zone to the local planning scheme, as well as area-specific strategies, such as the rezoning of a particular area to allow for subdivision for conservation. It is suggested that the map and associated information would act as the local bushland protection strategy referred to in *State Planning Policy 2.8*, as it would contain the most relevant components of the local biodiversity strategy to guide land use planning.

Ultimately, the local bushland protection strategy, natural area protection plan or similar, should identify which local natural areas are to be conserved and by which means. It may be necessary, therefore, to identify where certain zonings should or should not be applied in the future, as well as amendments to the local planning scheme that would be required to support implementation of the local biodiversity strategy.

Details on the quantitative and qualitative targets for local biodiversity conservation, and the preferred mechanisms for achieving the targets across the local government area, should be contained in a corresponding policy table. Local biodiversity conservation targets and implementation mechanisms should be practical and achievable, given the circumstances of current land zoning, subdivision or development potential, and the presence of structure plans (figure 19).

Changes in land use (eg rezoning from general rural to rural-residential) may provide

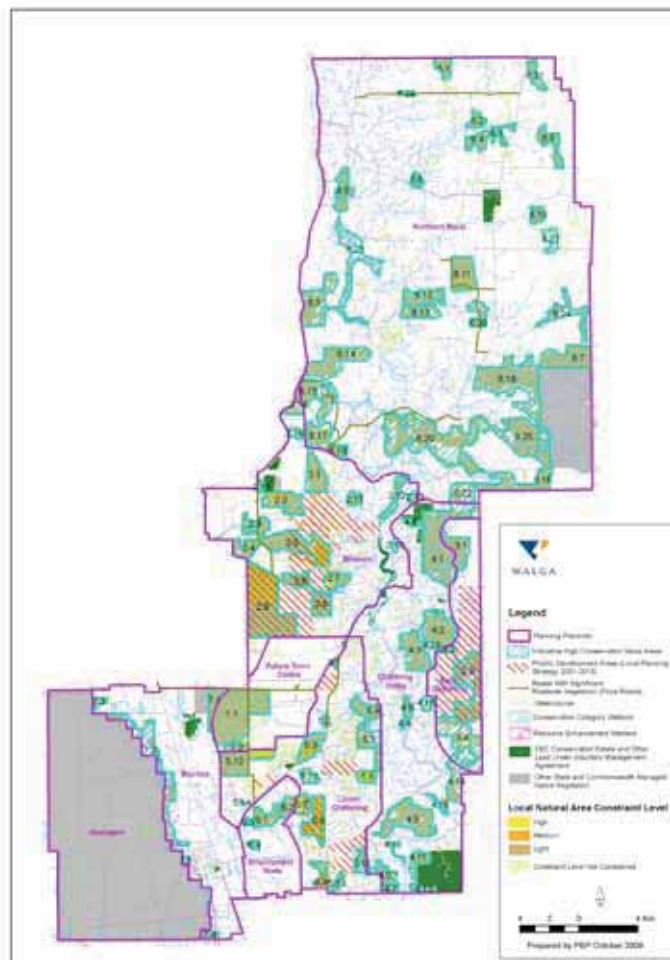
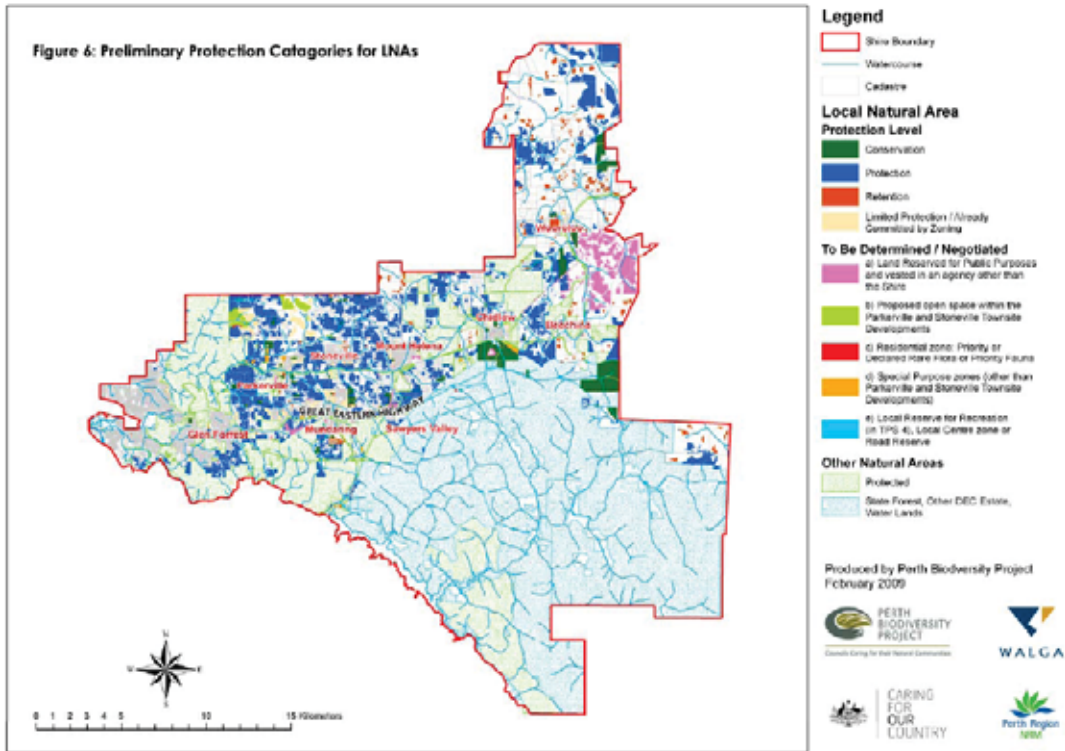


Figure 18: Shire of Mundaring map of preliminary protection categories for local natural areas (top) and Shire of Chittering map of indicative high conservation value areas

	Current land zoning	Subdivision or development potential	Presence of structure plans
↓ Decreasing opportunity for conservation	1. General Rural	a. Not identified for future subdivision	
		b. Identified for future subdivision	i. No agreed structure plan
	ii. Agreed structure plan		
	2. Rural Residential	a. Not yet subdivided	i. No agreed structure plan
			ii. Agreed structure plan
		b. Already subdivided	
3. Urban or Industrial	a. Not yet developed	i. No agreed structure plan	
		ii. Agreed structure plan	
	b. Already developed		

Figure 19: Opportunities for biodiversity conservation depend on the circumstances of current land zoning, subdivision or development potential and presence of structure plans

opportunities for enhanced biodiversity conservation outcomes, which might otherwise only have been achieved through voluntary uptake of private land conservation initiatives. On the other hand, previous planning decisions may limit opportunities for biodiversity conservation to voluntary conservation on small rural-residential lots, or management of remnant vegetation in public open space.

Local government progress on biodiversity in local planning strategies

EnviroPlanning has provided advice to local governments on the integration of local biodiversity strategies into local planning strategies, with the aim of gaining DoP support and WAPC endorsement of proposals to conserve local natural areas through land use

planning processes. Specifically, EnviroPlanning has liaised with the Town of Kwinana, the shires of Mundaring and Chittering, and the City of Wanneroo on incorporation of relevant aspects of local biodiversity strategies into these local governments’ local planning strategies.

Each of these local governments has a draft local biodiversity strategy but is at a different stage in terms of incorporating relevant components of the local biodiversity strategy into the local planning strategy (figure 20):

- The Shire of Mundaring and the City of Wanneroo are preparing their local biodiversity strategies and local planning strategies concurrently, and so are best placed to provide for biodiversity conservation in the context of future growth for these local government areas.



Figure 20: Progress of local biodiversity strategies in relation to local planning strategies

- The Town of Kwinana has an advertised draft local biodiversity strategy and an advertised draft local planning strategy, but neither strategy refers to the other. As an interim measure, the Town of Kwinana is preparing a local planning policy to give status to the local biodiversity conservation targets, the preferred scenario for achieving the targets across land zonings, and the local biodiversity strategy map (figure 18). The town's draft local planning strategy will need to be amended to incorporate relevant components of the local biodiversity strategy, and readvertised for public comment prior to consideration and endorsement by the WAPC.
- The Shire of Chittering has an endorsed local planning strategy (2007) and an endorsed local biodiversity strategy (2010). The local biodiversity strategy map identifies priority sites for conservation across the local government area (figure 18), which is useful for assessing planning applications. There are gross inconsistencies between the local biodiversity strategy and the local planning strategy. Some priority conservation sites are located in areas that have been identified in the local planning strategy for future development. The shire, with assistance from the DoP, will be undertaking a review of its local planning strategy to address, among other things, the inconsistencies between biodiversity conservation and proposed future development.

All local governments, including those not preparing local biodiversity strategies, are being encouraged to address biodiversity conservation through the preparation of local planning strategies and review of local planning schemes. Examples of biodiversity considerations for the local planning strategy are provided below.

Background section:

Issues

- native vegetation extent and representation of vegetation types;
- presence and locations of threatened ecological communities and rare/priority/significant species;
- protection status of native vegetation on Crown land;
- existing and potential ecological linkages;
- impacts of clearing regulations and environmental impact assessment;
- impacts of future development on biodiversity conservation;
- protection measures for areas of significant native vegetation in each land use zone; and
- components of local biodiversity strategy and associated planning implications.

Strategy section:

Strategies

- identify significant natural areas through land use planning processes;
- facilitate a strategic approach to the protection and management of significant natural areas; and
- provide for appropriate forms of subdivision/development in areas of high conservation value.

Local government-wide actions

- introduce a conservation reservation to the scheme and apply to significant areas of Crown land;
- prepare and implement a management strategy for local government reserves;
- prepare and adopt a local planning policy to guide local biodiversity conservation;

- prepare and adopt an incentives strategy for private land conservation;
- introduce a conservation zone to the scheme to allow subdivision of private land for conservation; and
- any rezoning proposal that impacts on natural areas will require an ecological assessment to be undertaken prior to rezoning, with the results of the ecological assessment to accompany the application for rezoning.

Area-specific actions

- In precinct A, retain X hectares of local natural area via the following mechanisms:
 - reservation and acquisition using development contributions;
 - public open space, including co-location with school site;
 - management agreement with Water Corporation; and
 - private land conservation in rural-residential area.

7.6.2 Local planning schemes

The local planning scheme is local government’s primary statutory planning tool. There are many options for local governments to integrate biodiversity considerations into the local planning scheme, and it is important that each local government selects the most appropriate approach. Biodiversity conservation can be addressed in various parts of a scheme, primarily through the use of reserves, zones, and special control areas.

Reserves

Reservation of land is the most secure form of land use and tenure for biodiversity conservation, but it is also the most expensive. A local government may designate an area as a conservation reserve in the local planning

scheme, which it must then acquire from the landowner. The process of designating and acquiring a conservation reserve is usually undertaken through structure planning.

Most local natural areas exist in parks and recreation reserves which cater for a range of recreational uses that may be incompatible with biodiversity conservation (eg ovals and sports complexes). In these cases, a conservation reservation may be applied retrospectively to existing local government parks and recreation reserves containing native vegetation.

Zones

Land zoning is an important factor in determining opportunities for conserving biodiversity. It is very difficult to retain native vegetation in areas where intensive land use and development is permitted. The identification of priority local natural areas for conservation, in the local biodiversity strategy component of a local planning strategy, will assist in limiting the impact of land use change on native vegetation by guiding development away from these areas.

As outlined in section 7.6.1 and depicted in figure 19, there are limited opportunities to conserve natural areas on urban and industrial zoned land and in these situations, biodiversity conservation is generally restricted to public open space and landscaping contributions. On the other hand, rural zones may provide for the conservation of large areas of native vegetation on private property, but in these situations, biodiversity conservation is largely voluntary, unless conditions can be imposed through a planning application (eg rezoning or subdivision). Opportunities for biodiversity conservation may arise through rezoning from general rural to rural-residential, although, conventional rural-residential subdivision has severe impacts on natural areas, due to the small size and regular configuration of lots, the dispersal of building envelopes, and the clearing and degradation associated with access ways, fence lines and fire breaks.

There is considerable scope for local governments to include provisions in local planning schemes to control land use in a way that minimises damage to native vegetation and promotes biodiversity conservation. Some of the most important matters to be addressed under the zoning provisions of local planning schemes (particularly for rural-residential zones) include:

- subdivision design that minimises clearing and fragmentation of native vegetation;
- designation of building envelopes;
- all clearing for bush fire protection contained in designated building envelopes;
- designation of strategic firebreaks;
- minimising access or driveways that require additional clearing;
- limiting fencing or minimising clearing for fence lines (eg to 0.5 metre width);
- excluding stock from vegetated areas;
- designation of vegetation protection areas to control clearing;
- preparation and implementation of management plans, especially weed control; and
- bush restoration, including direct seeding or revegetation with local native species.

Building envelopes or vegetation protection areas are particularly important tools for controlling clearing in rural-residential areas. It would be appropriate to use building envelopes to control clearing in situations where the entire lot is vegetated. Alternatively, vegetation protection areas may be used to control clearing on partly-vegetated lots. The most important consideration is subdivision design to minimise clearing, degradation and fragmentation of natural areas on private property (section 7.6.4). In this regard, cluster subdivision and development in cleared or degraded areas is preferred over conventional rural-residential subdivision. The City of Wanneroo District Planning Scheme No. 2 contains a rural community zone that provides for rural-residential development through conventional subdivision,

or cluster-style strata-subdivision that rewards the proponent with an additional lot bonus.

Conservation zones provide for the formal protection of local natural areas on private property. A local government may introduce a conservation-type zone to its scheme, which it may then apply to private land with agreement from the landowner, usually in exchange for some form of privilege (such as a subdivision bonus, development concession or rate rebate). Importantly, conservation zones provide for land to be actively managed for conservation purposes, usually through the requirement for a conservation covenant (section 7.6.5). The Shire of Busselton Town Planning Scheme No. 20 provides for biodiversity conservation on private property in the rural-residential, rural landscape, conservation and bushland protection zones.

Special control areas

As explained in section 4.4, a special control area is a mechanism that is intended to deal with issues which overlap boundaries of zones and reserves. Special control areas can place additional requirements to those of particular zones, in order to ensure land development is consistent with the purpose of the special control. These areas can be shown on separate scheme maps or as overlays to the zoning map. It is particularly important that the boundaries of the special control areas are accurate, clearly defined and relevant to the special control area provisions. Generally, a special control area is not appropriate for identification only, and the area provisions must serve a legitimate planning purpose. These areas need to be used selectively and sparingly to avoid making the planning system overly complex.

It should be noted that a special control area does not provide formal protection to native vegetation, rather, the control area provisions control development of land covered by the special control area. As such, a special control area should not be used to protect vegetation in areas where development is not currently permitted and therefore can not be controlled.

A local government could introduce a vegetation protection (or similar) special control area to the local planning scheme, in order to:

- change the permissibility of land uses under zones or reservations (eg require approval for a land use or development proposal in a vegetation protection area that would otherwise be permitted in the zone);
- specify particular development standards and requirements (eg require approval for dwellings in a vegetation protection area to ensure the construction of new buildings minimises the need for clearing for bush fire protection);
- list particular requirements which should be included with an application for planning approval (eg require provision of a vegetation management plan for any development in a vegetation protection area);
- specify relevant government agencies and public authorities which should be consulted on applications for planning approval (eg referral of development in a vegetation protection area to the DEC); and
- list relevant considerations which the local government must consider before deciding on an application for planning approval (eg relevant state planning policies, compatibility of use, appropriate management measures, and notices on title).

It may not be appropriate in all circumstances to include a vegetation protection special control area in a local planning scheme. Instead, certain provisions could be included under relevant zones to minimise impacts of development on native vegetation. Alternatively, it may be desirable to identify particular areas in the local planning strategy that accompanies a scheme. Such cases include where it is necessary to draw attention to the particular area (issue) as a relevant planning consideration, but where special planning controls are either unnecessary or undesirable. The Shire of Mundaring, for

example, has identified priority local natural areas in its draft local planning strategy and addressed these areas by reference in the local planning scheme. The level of confidence in the local natural area dataset is the main reason behind this approach.

General development requirements

Local planning schemes may include general development requirements relevant to biodiversity conservation, such as:

- subdivision plans (which form part of the scheme) to identify significant natural areas and outline measures for retention, and future subdivision to be in accordance with approved plans of subdivision;
- guidelines for building envelopes, setbacks, management plans and surveys;
- clearing controls and vegetation preservation measures;
- stock and weed management provisions; and
- requirements for rehabilitation or revegetation of degraded land.

Applications for planning approval

Local planning schemes may also require applications for planning approval affecting natural areas to be accompanied by relevant information, such as:

- maps showing native vegetation;
- studies on biodiversity values; and
- plans identifying significant natural areas and outlining measures for retention.

It is suggested that specific requirements for planning applications be addressed through the preparation of a local planning policy on biodiversity conservation.

7.6.3 Local planning policies

As explained in section 7.6, it is a common misconception among NRM professionals that local planning policies are the most important tools for achieving biodiversity conservation through land use planning at the local level. Local planning policies are made under the local planning scheme but they do not form part of the scheme. Therefore, while local government must have regard to local planning policies in making decisions under the scheme, they are not bound by the policies.

A local planning policy should provide guidance in exercising or informing discretion under the scheme, be consistent with any relevant State or regional planning policy and the local planning strategy, relate to a valid planning purpose and based on proper planning principles, and be concise and clearly explain what the policy is and how it will influence decision-making. Importantly, a local planning policy should only be prepared to provide guidance on matters of the scheme. So if a local planning scheme does not adequately provide for biodiversity conservation, it will be the local government's imperative to review and amend its scheme in order to do so.

Importantly, a local planning policy on biodiversity conservation should contain the local government's biodiversity conservation targets, the preferred scenario for achieving the targets across land zonings, and a map that identifies priority areas for conservation (section 7.6.1). The following format is recommended for a local planning policy on biodiversity conservation (to be informed by the local biodiversity strategy, if available):

- Introduction and background explaining the reasons and purpose for the policy (eg benefits of conserving biodiversity, role of local government in biodiversity conservation, guiding principles for biodiversity conservation, conservation values of local government area) and its relationship to any State policies or other local policies.

- Objectives of the policy (eg local government's objectives for biodiversity conservation, targets for representation of ecological communities and conservation of special features).
- Application of the policy, setting out where and under what circumstances the policy applies (eg application of conservation targets to different zones and precincts or policy areas, requirements for ecological information as part of development proposals and requirements for conservation plans to guide subdivision).
- Policy statements in short, succinct sentences, and any specific measures to implement the policy (eg future planning, design and development to be compatible with local biodiversity conservation targets, mechanisms available for local biodiversity conservation across zones, development incentives to achieve appropriate forms of subdivision and development, and incentives for private land conservation).
- Reference to any decision guidelines, supporting documents or other matters (eg guidelines for ecological assessment).

7.6.4 Structure plans and subdivision

Structure planning

The local planning strategy, local planning policy, or local planning scheme (eg under general development requirements) usually requires that certain studies be undertaken and that a plan be prepared to accompany an application for rezoning, subdivision or development of land. These plans may be referred to as district and local structure plans, detailed area plans, outline development plans, subdivision guide plans, or similar, and are hereafter referred collectively as structure plans.

Structure plans show the general pattern of land uses in a particular area and serve to guide the subdivision and development of land in accordance with the local planning scheme. A

structure plan for an urban area, for example, would typically show the density of residential areas, locations of public open space and schools, and the alignment of the transport network. A structure plan for a rural-residential area would typically show the configuration of lots and roads and the location of building envelopes.

Ideally, structure plans should be prepared following the rezoning of land, at each subsequent stage of the planning process, to provide more detail on land use, subdivision and development (this is usually constrained by limited resources being available). It is suggested that biodiversity considerations be addressed in the structure planning process through the preparation of conservation plans as a component of the district structure plan (district conservation plan), local structure plans (local conservation plans), and other plans prior to subdivision. These conservation plans would be prepared following ecological assessment, and would apply local biodiversity conservation targets and strategies to specific proposal sites.

Structure planning provides a major opportunity for local governments to conserve local natural areas, through a process of negotiation with proponents and other stakeholders. Some schemes provide for additional scheme provisions to be added as a result of the structure planning process, while others simply apply zoning provisions to a particular development area. Importantly, structure plans must include statutory provisions relating to the conservation of local natural areas (which may then be converted to conditions on subdivision), otherwise, these areas are at risk of being cleared at subdivision.

Natural areas in public open space

Local reserves created through the subdivision process (under section 20A of the *Land Administration Act 1997*) are issued with management orders to the care of a local government or state government agency. Ensuring that management orders reflect conservation purposes is an important part of

local biodiversity conservation. This may be undertaken retrospectively for existing local reserves (via application to Landgate), or as part of the subdivision process for new reserves. If a structure plan identifies that a local natural area is to be retained in public open space, it is possible to require as a condition of subdivision that the reserve purpose on the management order be designated as 'conservation' or 'conservation and recreation'.

Subdivision design

Planning for the subdivision and development of land has rarely taken into consideration the retention of viable natural areas (section 7.5.1), whether in public open space or rural-residential lots. The main reason for this is likely to be that, until recently, local biodiversity conservation has not been addressed early enough in the land use planning process. It appears that NRM professionals have concentrated too much attention on natural area retention at the subdivision stage, only to find that conditions on subdivision cannot be applied because provision has not been made in the local planning scheme or structure plan for the area.

The preparation of local biodiversity strategies, incorporation into local planning strategies and planning policies, amendment to local planning schemes, and incorporation in structure plans, are all likely to be required in order to effect change at the subdivision level. Nonetheless, it is suggested that guidance be prepared on subdivision design to support local biodiversity conservation, with associated awareness raising and training of planners and environmental officers in local government, the DoP and private consultancies.

Subdivision for conservation

Subdivision for conservation is a term used to describe the subdivision of land for conservation, in accordance with Development Control Policy 3.4 *Subdivision of Rural Land*. This policy provides for the subdivision of a single conservation lot (greater than 40 hectares and mostly vegetated) from its

parent agricultural lot, without the need for rezoning to a conservation purpose. Section 4.8 Conservation of biodiversity and natural heritage of Development Control Policy 3.4 states that:

Conservation lots may be created to preserve significant environmental features and remnant vegetation provided that:

- (a) *The vegetation has been identified and agreed as worthy of protection in an approved strategy, catchment plan, or a specific assessment carried out by an appropriate expert on behalf of the subdivider in accordance with the principles for clearing native vegetation contained in schedule 5 of the Environmental Protection Act 1986.*
- (b) *The Department of Environment and Conservation, National Trust of Australia (Western Australia) or another relevant agency has provided advice endorsing the suitability of the lot for the intended purpose of retaining environmental values, including the adequacy of the area if it is less than 40 ha, and has provided in-principle agreement to administer the necessary conservation covenant.*
- (c) *Generally at least 85 per cent of the area of the conservation lot has high environmental values or is covered by native or regenerated vegetation and/or wetland.*
- (d) *The proposed conservation lot has an appropriate shape having regard for the native vegetation, natural features, bush fire management, farm management and existing or proposed structures.*
- (e) *A conservation covenant in perpetuity with the Department of Environment and Conservation, the National Trust of Australia (Western Australia) or an alternative authority acceptable to the WAPC is registered on the certificate of title and that covenant includes provisions that:*
 - (i) *prohibit further clearing (other than for necessary land management requirements);*

- (ii) *clearly delineate a building envelope and/or building exclusion area also shown on the subdivision plan; and*
- (iii) *prohibit stocking outside any existing cleared area.*
- (f) *The remaining agricultural lot:*
 - (i) *has sufficient area to be capable and suitable for agricultural use; and*
 - (ii) *retains, where practical, native or regenerated vegetation as an integral part of sustainable farming, provided that this does not result in the division of significant vegetation in order to include a portion of that vegetation in the agricultural lot.*

Development Control Policy 3.4 does not provide for the creation of more than one conservation lot, and suggests that landowners wishing to create multiple conservation lots seek to do so through rezoning rural land to a conservation purpose (eg conservation themed rural-residential or rural-smallholdings), where conservation covenants and building envelopes can be specified. Guidance for this type of conservation subdivision is provided for the Leeuwin-Naturaliste Ridge policy area (*State Planning Policy 6.1 Leeuwin-Naturaliste Ridge*, land use strategy 3.4 and 3.8), but is not provided for other areas of the South-West Australia.

The shires of Manjimup, Northampton and Augusta-Margaret River are proposing to introduce conservation-type zones to their local planning schemes, in order to provide for the subdivision of multiple conservation lots in the rural area. These amendments would provide the enabling provisions required to support subdivision of smaller conservation lots than is currently provided for under Development Control Policy 3.4, in exchange for formal protection and management of natural areas under the local planning scheme and conservation covenants.

In order to streamline planning approvals processes and maximise conservation outcomes, local governments are encouraged to prepare a local biodiversity strategy or local bushland protection plan (which is then incorporated into the local planning strategy or policy) to guide subdivision for conservation in rural areas. The strategic plan would identify priority areas for conservation, which would assist landowners, local governments and the DoP/WAPC in assessing and determining applications.

7.6.5 Conservation covenants

Conservation covenants are important for achieving conservation of natural areas on private property and may be used as an alternative or complementary mechanism to local planning schemes. A conservation covenant is a voluntary agreement between a landholder and an authorised body (such as a covenant scheme provider) that aims to protect and enhance the natural values of certain land. The owner continues to own, use and live on the land while the natural values of an area are conserved by the landholder in partnership with the covenant scheme provider. Importantly, the covenant is registered on the certificate of title for the land and binds all future landowners.

Conservation covenants are generally restrictive in nature in that they require the landowner not to undertake particular activities, such as clearing of native vegetation or stocking of animals. A restrictive covenant is an agreement which restricts a landowner in the use of their land (burdened land) for the benefit of other land (benefited land) or for the benefit of a public authority (no benefited land). The covenants cannot be used to require the landowner to undertake positive actions (such as weed control or revegetation). Covenanting programs assist landowners to prepare and implement management plans, which in some cases are made legally enforceable through a deed (in the case of the National Trust) with the landowner, and a caveat on the certificate of title to indicate a change in land ownership.

In Western Australia, landowners can establish conservation covenants with the DEC, the National Trust of Australia (Western Australia), or DAFWA's Office of Soil and Land Conservation (table 5). The level of restriction on land use and development imposed by a conservation covenant varies according to the covenanting organisation, the proposed development and the landowner's circumstances. After being registered on the land title the level of restriction does not vary. Only the extent of exceptions negotiated prior with the original landowner vary from the basic conservation covenant.

Conservation covenants originated as voluntary agreements negotiated outside of the planning system, but in the last 20 years conservation covenants have increasingly been used to protect natural areas as part of the consideration of subdivision and development proposals. *Planning Bulletin 91 Estate Covenants: New Residential Subdivisions* explains the concept of restrictive covenants and outlines their use in the planning system. The WAPC or local government may require an applicant to enter into a restrictive covenant (either with the WAPC, the local government or another authority) as a condition of approval. The power for the WAPC to impose conditions of subdivision approval arises under sections 138, 139, 143, 144, 148 and 151 of the *Planning and Development Act 2005*. Any power to impose conditions on development approval will generally be contained in the relevant local planning scheme.

Conservation covenants are only recognised by the planning system when they have resulted from a planning decision. Covenants that have arisen out of planning decisions may be referred to as conditional covenants because the covenant is made as a condition of planning or subdivision approval. Covenanting bodies are well prepared to enter into conditional covenants with landowners preparing proposals, and distinguish these from voluntary covenants. Some problems associated with conservation covenants have been identified by planners and covenanting agencies, namely:

- landowners who are party to conditional covenants may be less inclined to

	Office of Soil and Land Conservation	National Trust of Australia (WA)	Department of Environment and Conservation
Empowering legislation	<i>Soil and Land Conservation Act 1945</i>	<i>National Trust of Australia (WA) Act 1964</i>	<i>Transfer of Land Act 1893</i>
Scope for management	Can probably contain positive obligations relating to management	Restrictive in nature (with positive requirements through a deed and caveat)	Restrictive in nature
Lifespan	Usually 30 years	Variable, but preference for 'in-perpetuity'	Variable, but preference for 'in-perpetuity'
Permanence	Covenants cannot be revoked by agreement during their term, but could probably be revoked by court order or by the operation of a local planning scheme.	Can be revoked or varied by agreement, court order or operation of a local planning scheme.	Can be revoked or varied by agreement, court order or operation of a local planning scheme.
Enforcement	Commissioner can apply for an injunction, or prosecute for breach. Neighbours whose land is damaged by breach may sue.	National Trust can enforce by injunction.	DEC can enforce by injunction.
Stewardship program and management advice	No	Yes	Yes
Preparation of management plan	No	Yes (implementation of plan binding on landowner via deed)	Yes (implementation not binding)
Direct cost of conditional covenants to applicants (as at September 2007)	Total charges from covenanting body to landowner of \$800 - \$1600	\$10,000 per lot charged by to landowner, part of which funds an ongoing stewardship program	\$3000 (under review and may increase to similar amount as National Trust)
Criteria for acceptance of sites	Criteria are minimal. SLCA 1945 provides that any landowner may set aside land under a covenant for the management and protection of vegetation. Prefer that area is several hectares in extent.	Criteria are moderate. Generally same as for DEC covenants but National Trust will often consider areas that may not have as high environmental value as that sought by DEC.	Criteria are moderate to high. Generally sites should have vegetation in good or better condition, preferably recognised by a local or regional biodiversity strategy or policy. Site should be sustainable in the long-term and require minimal positive management.

Table 5: Characteristics of the major conservation covenanting programs in Western Australia

appropriately manage their properties for conservation purposes than landowners who have entered into a conservation covenant voluntarily; and

- planning decisions made by local governments and the DoP/WAPC do not always take into account conservation covenants that have been created voluntarily.

There are good reasons why appropriate zoning and covenants should be used together to protect natural areas, including:

- the strengthened protection in the local planning scheme and property title, given that the two mechanisms protect sites in different ways (referred to as the 'belt and buckle' approach);
- the role of local planning schemes in controlling development across a local government area;
- the involvement and advocacy of a third party with a conservation charter in covenants;
- the enforceability and significant fines for breaches of the local planning scheme; and
- the additional environmental expertise of covenanting programs.

7.7 The future of biodiversity conservation through land use planning

The impacts of land development are widespread and long-lasting, so it is crucial that biodiversity considerations are adequately integrated and addressed in land use planning processes. Despite the strong legislative and policy basis for biodiversity conservation in land use planning, extensive clearing of significant local natural areas occurs across Western Australia as a result of land use planning decisions.

The DEC, the EPA and the Minister for Environment play an important role in biodiversity conservation through land use planning, primarily through environmental impact assessment of planning schemes and development proposals, and the assessment of applications to clear native vegetation. The focus of environmental impact assessment on proposals that are likely to have the greatest environmental impact, together with exemptions in the environmental legislation that allows land to be cleared if it has planning approval, means that environmental assessment processes are only able to go part way towards addressing the conservation of natural areas on private land. It is ultimately the responsibility of local governments, the DoP, the WAPC and the Minister for Planning, through administration of the planning system, to address biodiversity conservation in the context of sustainable use and development of land.

Many of the problems associated with the impact of land use, subdivision and development on natural areas cannot be attributed to the Western Australian planning system itself. In fact, compared with other states of Australia, Western Australia's centralised planning system may provide for enhanced biodiversity conservation outcomes. For example, region planning schemes in South-West Australia provide for the reservation and acquisition of significant natural areas for parks and recreation purposes. The conservation of local natural areas (natural areas that exist outside of the regional reserve system) is not being adequately addressed in the application of the land use planning framework. The retention, protection and management of a system of local natural areas form an important component of biodiversity conservation in the global biodiversity hotspot of South-West Australia. The conservation of local natural areas assists in maintaining native vegetation cover in the landscape, providing buffering and connectivity between reserves, to support the long-term survival of genes, species and ecosystems.

Current state government policy suggests that planning for local biodiversity conservation is largely the responsibility of local governments. The availability of regional information on biodiversity assets and function, and integration of these considerations into strategic planning at the regional level is limited, which makes it difficult for individual local governments to effectively plan for local biodiversity conservation. Even though the planning legislation establishes biodiversity conservation as a relevant consideration for state planning policies, planning schemes and conditions of subdivision, limited practical guidance or technical support is provided to local governments to address biodiversity through land use planning.

Over the past five years, local governments in the Perth (Swan) and South-West NRM regions have received support from WALGA, the DEC and the DoP for the preparation and implementation of local biodiversity strategies. Due to the time and effort required for the preparation of local biodiversity strategies in accordance with the WALGA guidelines, few resources have been made available to local governments for the integration of biodiversity considerations into local planning strategies, schemes and structure plans. It is therefore imperative that the process for preparation of biodiversity strategies and integration into the land use planning system be simplified and streamlined.

Opportunities exist for local biodiversity conservation to be addressed at all stages of land use planning. Biodiversity considerations should be incorporated into the planning process as early as possible, and carried through each subsequent stage of planning. The future success of biodiversity conservation depends on the improved knowledge, skills and commitment of State and local governments to address this important NRM issue through land use planning.

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Appendices

Appendix 1: Summary of local government partnership program projects

Shire of Busselton - Local Environmental Planning Strategy

As part of the South-West of Western Australia, the Shire of Busselton is recognised as a global biodiversity hotspot. Vegetation clearing, tourism, changes in land use planning and residential development are placing significant pressure on these biodiversity values. With the population now exceeding 28 000 and set to grow at rates well above the State and national averages, the shire now faces the challenge to manage its growth sustainably while retaining its environmental status.

Further to the current social pressures in the South-West, future climate change is expected to have a significant impact on the southern parts of Western Australia. It is likely that projected increases in temperature and reductions in rainfall will have severe implications for the social, environmental and economical aspects of the region.

The Shire of Busselton is currently reviewing its planning framework with a view to preparing a local planning strategy and subsequent local planning scheme to guide development in the shire in the future. EnviroPlanning provided \$38 182 of funding, sourced through the South West Catchment Council, for the development of a local environmental planning strategy, one of six strategies prepared to feed into the local planning strategy. The Shire of Busselton's strategy was developed as a partnership involving the shire and the DoP. The study area comprises the entire Shire of Busselton municipal area which is about 145 500 hectares. The local environmental planning strategy has been developed to provide the shire with guidance on key environmental matters relating to development and land use planning. More specific considerations have also been provided

for areas where development pressures are expected to be greatest – areas experiencing high population growth. The local environmental planning strategy highlights the desired environmental outcomes and how these can be achieved through the land use planning system. The draft strategy will be released for public comment and, following consultation, will be integrated into the shire's local planning strategy.

Shire of Serpentine-Jarrahdale - Mundijong/Whitby Environmental Structure Plan

The urban expansion of the Mundijong/Whitby area has been identified in a number of strategies, including the *State Planning Strategy* and *Network City*. With a projected population increase from 14 000 to an estimated 60 000 by 2037, the Serpentine-Jarrahdale shire needs to be prepared for future development pressures. The Shire of Serpentine-Jarrahdale seeks to protect and enhance its rural character and environment by accommodating the projected growth principally in the existing urban footprint, maximising beneficial impacts of growth and containing potential adverse impacts.

In light of the proposed urban expansion of the Mundijong/Whitby area, the shire is undertaking the development of a district structure plan. The Mundijong/Whitby District Structure Plan covers an area of approximately 1800 hectares and is expected to accommodate about approximately 30 000 people by 2037. EnviroPlanning, with funding sourced from the South West Catchment Council, provided \$72 676 to support the development of the environmental component of the structure plan and assist its integration with other components of the structure plan through an enquiry-by-design workshop.

The environmental study for the district structure plan has identified environmental assets, the environmental impacts of potential land uses and planning mechanisms for managing identified impacts to an acceptable level. The environmental study will inform further preparation of the structure plan which will guide development in the area.

Shire of Mundaring - Local Biodiversity Strategy

EnviroPlanning funding of \$6500 was used by the Shire of Mundaring to assist with the integration of relevant components of the shire's local biodiversity strategy into their local planning strategy. The shire's local biodiversity strategy includes:

- formal policies and processes to ensure biodiversity considerations are integrated into assessment of development proposals and construction activities;
- incentives to encourage private land conservation; and
- recommendations for the vesting and management of local reserves and other local government lands to conserve biodiversity.

To assist the integration of the shire's local biodiversity strategy into the local planning the shire has prepared draft text for inclusion into the draft local planning strategy. The draft text provides the justification and rationale for addressing biodiversity conservation through the shire's local planning scheme.

South East Avon Voluntary Regional Organisation of Councils - Local planning policy for tree farming in low rainfall areas

Reduced rainfall and increasing degradation of traditional Wheatbelt farming lands has encouraged the establishment of low rainfall tree farms using native mallees and other species. Profits gained from the trees are only the beginning of the benefits, with the trees also

proving useful for reducing erosion, carbon sequestration, production of oil and biomass products, and water and salinity management. Maximising the benefits of low rainfall tree farms requires a thorough understanding of a diverse range of issues, including impacts on salinity, water cycling, clearing, biodiversity, transport requirements, traffic management, infrastructure needs, fire management, impacts on neighbouring properties through noise and spray drift, and changes in rural landscapes.

South East Avon Voluntary Regional Organisation of Councils is an assemblage of councils, including the shires of Brookton, Beverley, York, Quairading and Cunderdin. It was provided \$20 423 in funding from EnviroPlanning to support the production of a low rainfall tree farming local planning policy. The initial stage of the project involved the preparation of an issues paper outlining the opportunities and constraints for tree farming in the study area. The issues paper, through examining the existing legislative framework, industry requirements and land requirements for low rainfall tree crops, has informed development of the local planning policy. The local planning policy has been prepared for the five shires that seek to promote an efficient and consistent approach to the assessment of applications for tree crops across the South East Avon region. The local planning policy has potential application for other areas of the Wheatbelt and the issues paper will form the basis of an information package for landowners interested in tree farming.

City of Wanneroo - Water Management Strategy

The City of Wanneroo faces significant development pressures and is consistently challenged to achieve implementation of total water cycle management in existing and developing areas. To mitigate these pressures and assist integration of total water cycle management into land use planning, the City of Wanneroo is undertaking development of a water management strategy.

The city was provided \$66 200 in funding from EnviroPlanning to develop a water management strategy that addresses the entire local government area. Development of the water management strategy involves collation and analysis of existing information on water resources, development of objectives and identification of water planning precincts, and the eventual integration of this into the city's local planning strategy.

The City of Wanneroo Water Management Strategy provides an important demonstration of the integration of total water cycle management and a case study for the implementation of the *Better Urban Water Management Framework*. Recommendations of the city's water management strategy will be implemented via incorporation into the City of Wanneroo Local Planning Strategy and the City of Wanneroo District Planning Scheme as well as through local policy, management plans and strategies.

Shire of Chapman Valley - Moresby Range Land Use Management Plan

The Moresby Range is a prominent feature in the Geraldton region and the broader Northern Agricultural region. It has high landscape values and forms a significant landscape backdrop to the Geraldton regional centre and key regional roads. Indigenous and non-indigenous cultures have recognised the importance of the range's conservation value and its potential to become a unique recreational and environmental asset to the region. Fragmented land ownership, increasing development pressures, and the legacy of historical land clearing and management practices threaten the integrity of the range. For the values of the range to be protected and enhanced it was recognised that future development and land management activities needed to be based on a sound planning framework.

In recognition of these issues the Shire of Chapman Valley sourced \$45 455 in funding from EnviroPlanning and additional funds from the Wheatbelt Development Commission and

the City of Geraldton-Greenough to assist preparation of the Moresby Range Detailed Land Use Management Plan. This management plan provides further guidance on protecting the landscape and environmental amenity of the Moresby Ranges by defining boundaries of a regional park and land use and management options in and adjacent to the regional park. The Moresby Range Management Plan will inform future statutory and strategic planning and management of the Moresby Ranges.

Albany Regional Vegetation Survey

The City of Albany is experiencing demand for additional housing that needs to be carefully planned for to ensure that conservation values are adequately considered. Future land use planning in the City of Albany is somewhat constrained due to the absence of a detailed assessment of the native vegetation communities in the vicinity of Albany and no regional strategic framework against which the biodiversity values of individual patches of native vegetation can be assessed.

EnviroPlanning contributed \$133 000 that has leveraged further investment by the Department of Environment and Conservation, City of Albany and South Coast NRM to undertake mapping of native vegetation communities in Albany and surrounding areas. The project has involved mapping of native vegetation over 124 415 hectares, and floristic survey involving 785 sites which has identified 67 native vegetation units. An interim report was prepared to assist the EPA with assessment of three development sites. A final technical report was released by DEC in September 2010. The report will inform conservation planning and strategic land use planning, and provide a context for assessment of native vegetation values associated with land likely to be subject to urban, industrial or rural-residential development proposals in the Albany region.

Geraldton Regional Flora and Vegetation Survey

In 1999 the DPI produced the Geraldton Regional Plan to provide a regional framework for planning decisions in the area. It was acknowledged by the EPA in its comments on the plan that a regional native vegetation survey was required for the Greater Geraldton Region (City of Geraldton and portions of the shires of Greenough and Chapman Valley) to provide a regional context for decisions relating to development proposals that have potential to impact on native vegetation.

In response to the need for a regional native vegetation survey, EnviroPlanning contributed \$83 000 and leveraged further investment from the City of Geraldton-Greenough and LandCorp to assist collection, analysis and interpretation of information on flora and vegetation types.

The regional flora and vegetation survey aims to better describe and map the vegetation of the area, to provide a regional context for conservation-based planning decisions in the region. A technical report and maps have been prepared that define the extent and conservation significance of nine Beard vegetation associations and 17 plant communities in the 40 737 hectares of the survey area. The report was released by the WAPC in March 2010, and was endorsed by the EPA through Environmental Protection Bulletin No. 10.

Appendix 2: Regional land use forums summary report

Aims/objectives

The aims of the EnviroPlanning regional land use forum were to:

- raise awareness about the EnviroPlanning initiative;
- educate participants on the land use planning process;
- facilitate information sharing and networking between State and local governments and NRM groups; and
- highlight opportunities for integration of NRM into land use planning in the region.

Background

Five regional land use forums and one information session were held during the months of February to June 2008 and these were held in locations which aligned with the NRM regions, these were:

Northern Agricultural Region - Geraldton	14th February 2008
<i>Peri Urban Issues*</i> - Perth	18th March 2008
Avon Region - Northam	14th May 2008
South Coast Region - Albany	23rd May 2008
South West Region - Bunbury	10th June 2008
Perth and Peel Information Session - Perth	19th June 2008

* the Peri Urban forum is covered in a separate report prepared by Shelley Shepherd of Essential Environmental Services

Invitees were from a range of organisations, including local government, state government agencies, community groups, environmental groups and the public. The representation from planning and environmental professionals in local government across the regions varied significantly. The average attendance numbers for each forum was 25 participants.

The forums were advertised through the WALGA Environment News electronic newsletter as well as emailed to all local governments in the region and all members of the relevant local catchment council.

Forum structure

The regional forums were one day in duration, from 8:45am to 4:00pm which provided the following:

- overview and background on EnviroPlanning and the Western Australian planning system;
- opportunities for integrating NRM into land use planning;
- state agency, local government and NRM regional groups roles and responsibilities in NRM and land use planning; and
- workshop sessions to explore the issues of NRM and land use planning.

Each section was supported by a presentation(s) followed by question-answer time, as well as a workshop at the end of the day, to discuss in detail the issues, activities, limitations and proposals for integrating NRM into land use planning.

Presentations were provided by staff from the DoP EnviroPlanning team, DoW, DAFWA, the DoP as well as the relevant catchment council for the region, and a local government perspective from the region. The presentations

aimed to give participants background understanding of the project and planning in Western Australia and to further the discussion in the workshop session.

Attendees

For each regional forum the following participants attended:

Region	Participants
Northern Agricultural Region 20 participants	Northern Agricultural Catchment Council
	Shire of Chapman Valley
	City of Geraldton - Greenough
	Community member
	Department of Environment and Conservation - land for wildlife
	Department of Planning - Geraldton
	Department of Agriculture and Food - Geraldton
	Department of Water - Perth
	Department of Water - Geraldton
	WA Landskills
	Student RMIT Melbourne
	Avon Region 23 participants	Avon Catchment Council
Shire of York	
Shire of Merredin	
Shire of Northam	
Shire of Bruce Rock	
Shire of Trayning	
Shire of Goomalling and Dowerin	
Department of Water	
Department of Agriculture and Food	
Department of Environment and Conservation	
Department of Planning	
CSIRO	

Region	Participants
South Coast Region 22 participants	South Coast NRM Inc
	Shire of Bridgetown-Greenbushes
	Shire of Plantagenet
	Shire of Denmark
	Shire of Kojoonup
	Shire of Jerramungup
	City of Albany
	Shire of Ravensthorpe
	Department of Water
	Department of Agriculture and Food
	Department of Environment and Conservation
	Fitzgerald Biosphere Group
	Albany Port Authority
	Western Power
Ayton Taylor Burrell	
UWA	
South West Region 24 participants	South West Catchment Council
	Shire of Bridgetown-Greenbushes
	Shire of Augusta-Margaret River
	City of Bunbury
	Shire of Manjimup
	Shire of Dardanup
	Shire of Capel
	Department of Water
	Department of Environment and Conservation
	Department of Planning - Bunbury
	WALGA
	Warren Catchment Council

Workshop activities

For each workshop session participants were requested to break into tables with a mix of professional backgrounds, including local government, agencies and catchment group representatives.

The first forum took place in the Northern Agricultural region and the workshop session was held at the end of the day. The session focused on questions relating to NRM assets such as water, coast, and biodiversity and asked:

- What are the asset management issues relevant to land use planning?
- What data, projects and activities are currently used for management of these assets in land use planning?
- What are the gaps/limitations to achieving management of these assets via land use planning?
- What projects/programs are proposed to improve integration of asset management into land use planning?

The Avon forum participants in the afternoon workshop session were asked broader questions relating to NRM and land use planning:

- What are the key NRM land use planning issues for the Avon region?
- What are the ways these issues are being addressed currently? (think about the various mechanisms you use) – what is being done well and what needs improvement?
- What future approaches are needed (options/tools/support) for the better integration of NRM into land use planning?

For the final two forums (South Coast and South-West) the workshop questions were adapted to reflect the feedback from the previous forums as well as the desire to obtain more specific answers from participants, including detailed examples. For these reasons the South Coast and South-West forums used the following questions:

- Considering the current state planning framework, including state planning policies, development control policies, regional strategies, guidance statements and current local schemes and strategies (the tools), do you think it is adequate in terms of its flexibility and intent (objectives) to address NRM issues and assets? *Think about flexibility, intent, wording, scale and implementation of these tools.*
- What experience have you had with the current state planning framework not adequately addressing and ensuring positive NRM outcomes? *Please provide specific examples,*
- Are state, agency, local government and NRM regional group roles and responsibility in relation to addressing NRM issues and assets through land use planning clearly defined and understood? If not for which agencies is further clarification of role and responsibilities required? What level of detail should be provided when defining or clarifying the roles or responsibilities of state agencies to different stakeholders?
- For which NRM themes or issues is availability of information a major limiting factor in addressing that issue through land use planning (top 3)? What information is required and how can access to it be best facilitated?

The South-West forum workshop session was incorporated into the day with one session in the morning and one after lunch in order to break up the presentations.

Workshop outcomes

Northern Agricultural region

Interestingly, from the forum there was a strong identification that triple bottom line measures were needed to effectively integrate NRM into planning, including true value placed on biodiversity and long-term planning to reflect true costs and accountability.

Strongly evident from the workshop session was the concerns and limitations that are placed on local governments and catchment groups through lack of resources – time, staff and money for programs. This combined with frustration with data that is difficult to obtain, incomplete, not centralised and often non-existent, is placing boundaries on how far officers can implement NRM protection through planning.

Avon

From the Avon forum four strong themes emerged in relation to the issues of NRM and land use planning in the region, these were:

- communication – lacking
- capacity – insufficient
- *State Planning Framework* – inadequate
- resourcing – insufficient

The forum participants felt that there was:

- lack of understanding of land use planning in Perth (DoP/DEC) due to career pressures/experience shortages;
- poorly expressed and constructed state planning policies – open to interpretation;
- access to networks, advice, information – who? where? how?;
- resource capacity – how to participate in the process?;
- boundaries are different for planning and state agencies;
- need for improved cooperation, communication and resource sharing across local governments, particularly in the Avon River Catchment; and
- lack of integration between local government and state agencies.

South Coast

With a change in questions at the South Coast forum in order to obtain more detailed answers from participants, the workshop revealed that:

- the *State Planning Framework* did not adequately integrate NRM into land use planning;
- that the roles and responsibilities of state NRM agencies, NRM groups and local government in addressing NRM consultation through the different stages of the planning process are not clearly defined or understood; and
- the key areas requiring further information are vegetation followed by water, climate change, land, biodiversity, buffer requirements.

More specifically, the participants felt that:

- State Planning Framework was outdated (NRM and climate change);
- good intent but implementation lacking;
- regional strategy – not effective and lacking relevance;
- metro-centric, politically driven and not innovative;
- interpretation – used differently, not consistent;
- confusing and lack of awareness, lack of understanding;
- peri-urban planning needed as opposed to urban planning;
- lag times;
- boundaries for the regions and planning vary;
- spatial scales;
- objectives don't feed into local levels;
- interpretation of data;
- significant confusion with changing agencies – DEC/EPA/DoW;
- role of DAFWA – do they address subdivisions or not?; and
- Internal issues with red tape preventing communication.

Specific examples provided by participants of good planning activities or those that did not achieve NRM outcomes included:

- Crystal Park, Ravensthorpe – rural conservation estate – 1-4 hectare blocks with 3000 m² building envelope. Not much thought gone into allocation of envelopes.
- Little Grove Structure Plan (City of Albany) protection of ridge in Jeffcott Street proposal.

South-West

From the South-West forum participants also felt that:

- the *State Planning Framework* did not adequately integrate NRM into land use planning;
- that the roles and responsibilities are not clearly defined for NRM and land use planning in the region; and
- the key areas requiring further information are relating to geographic information systems, resolution of data and example planning that has been done well to reference.

The participants felt that there was:

- not a whole-of-government response in the integration of NRM into land use planning;
- local policies created by local government not supported by WAPC;
- too flexible and too specific – need a balance;
- some state planning policies are working well – eg Leeuwin Ridge;
- agency change over and restructure causing confusion – DEC/EPA/DoW;
- DoP advice and sign off at what level is unknown;
- regional boundaries make it difficult to consult and work together;
- agencies provide conflicting answers – eg buffers;

- organisations own understanding is lacking;
- need common geographic information systems to everyone;
- training and education on using data;
- resolution of data and scales for mapping insufficient; and
- agencies need to communicate their strategic direction on issues to local government.

Specific examples provided by participants of good planning activities or those that did not achieve NRM outcomes included:

- Vasse Newtown Conservation Category Wetlands – not well done – wetlands overlooked and information lost, not on database. Also water sources not identified as required – acquired water through political process!
- Port Geographe – coastal planning policy not applied – drainage, odour, sand movement all issues. Water allocation/aesthetic lake not considered up front. Over allocated area. Not consistent with other decisions on water for aesthetic reasons.
- Vasse Newtown – water planning not completed upfront. Developers did not comply. Allocation insufficient but development happened. Ecological corridors not well done – eg ocean to Preston in Bunbury.
- Good NRM examples – subdivision Windy Hollow Estate Bridgetown – change in land use from rural to semi-rural resulted in creek line improvements, vegetation linkages (private land/provisions).
- Stoneville in Shire of Mundaring – Local Subdivision and Infrastructure Plan No. 303 – creek line reserves greater than 10 per cent; lot design and building envelopes and road layout to protect remnant vegetation; and improve corridor links.

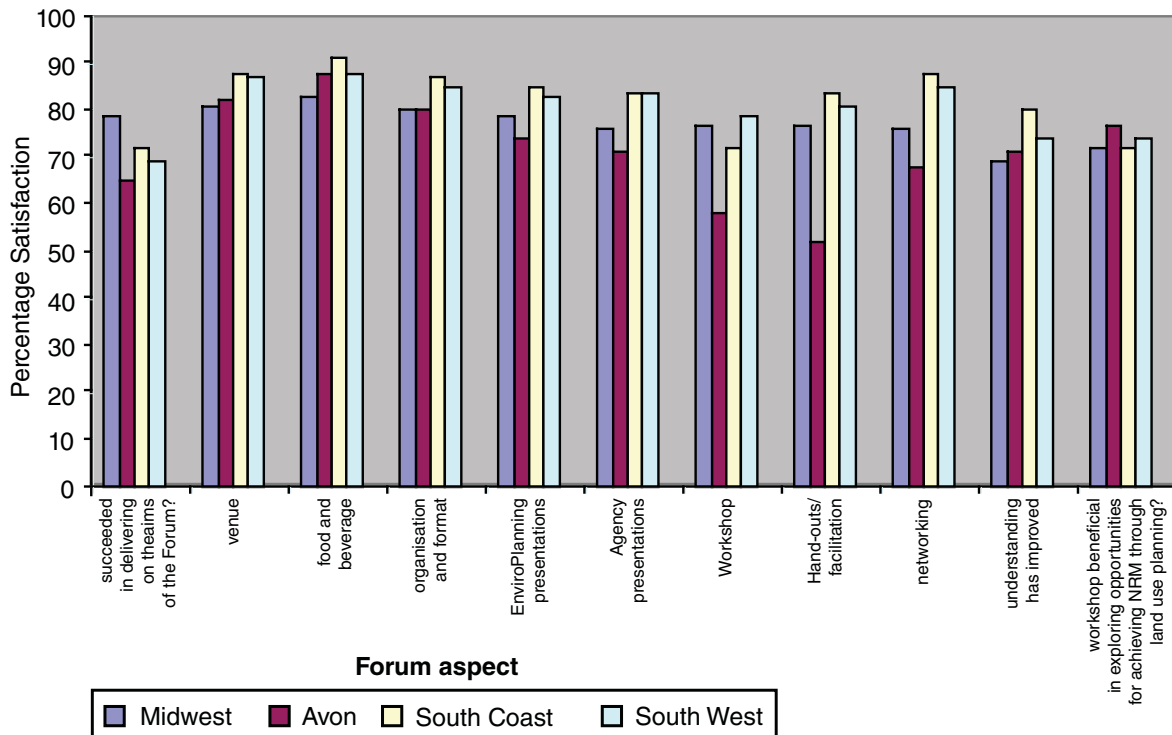
- Augusta-Margaret River Shire Council – Lot 24 Caves Road – Conservation subdivision/rezoning – pristine bushland adjoining native reserves/DEC covenant (optional).
- Bad example from Augusta-Margaret River Shire Council – Lot 30 Gimble Road – lots too small; DEC unlikely willing to covenant with five lots; and management plan conditional by local government.
- Port Geographe Marina – Shire of Busselton – bad.
- Boronia Heights – Walpole – poor compliance; acid sulfate soils not detected.

Overall

Overall feedback received from the workshop sessions from participants were that:

- State agency organisations are lacking an understanding of their own role in the land use planning process.
- There is significant confusion over agency roles and responsibilities with the restructures, amalgamations and changes that occur regularly.
- There is a lack of understanding of the State Planning Framework and how it can play a role in planning for NRM outcomes.
- Interpretation of the State Planning Framework (especially state planning policies) is varied according to which department and individual is consulted.
- The variation in planning, NRM and state agency boundaries make it difficult to consult and work together.

EnviroPlanning forum feedback



Feedback forms

Feedback forms were completed by participants at the end of the forum to provide information to the EnviroPlanning project regarding success of the forum and any adaptations that may be required. The feedback is shown in the following table.

Recommendations

The response from the forum participants was strongly supportive of further EnviroPlanning forums in the future to further opportunities for networking, learning about the planning process and the outcomes of the EnviroPlanning directions paper.

The provision of further workshops and forums should be considered in light of the directions paper in December 2008.

Appendix 3: Review of the regional NRM strategies from a land use planning perspective

This report has been prepared as an initial component of EnviroPlanning (Natural Resource Management Land Use Planning Project), an Australian Government sponsored project funded through the Natural Heritage Trust. EnviroPlanning, a partnership project involving the DoP, WAPC and WALGA, aims to improve the integration of NRM into land use planning. NRM for the purposes of EnviroPlanning is defined as a process that seeks the best long-term outcomes for our land, water and air through controlling the interaction of society with the environment.

The purpose of this report is to review the six Western Australian NRM regional strategies and associated investment plans to evaluate the effectiveness with which they acknowledge, guide, integrate and support the land use planning process in achieving NRM outcomes. Short papers specific to each NRM region have also been prepared and should be read in conjunction with this summary.

This report and the papers that have been prepared for each of the NRM regions are not intended to undermine the work that the NRM regions have undertaken in preparing and implementing their NRM regional strategies, rather explore the extent to which they have supported the integration of NRM into land use planning processes. It is acknowledged that the NRM regions through their strategies have taken the first initial step in recognising the linkage between NRM and land use planning. Furthermore, it is acknowledged that the level of local government, DoP and WAPC engagement and involvement in the NRM regional process has been varied across the six NRM regions. This varied involvement of the key land use planning decision-makers is a major contributing factor that has influenced the effectiveness of the NRM regional strategies to acknowledge, guide, integrate and support the land use

planning process in achieving NRM outcomes. Through the EnviroPlanning project it is hoped that the level of engagement and involvement of State and local government in supporting the NRM regions to improve the integration of NRM into land use planning will be further refined.

1. Overview of NRM regional strategies

NRM regional strategies were developed in response to a shift in the program delivery of NRM in Australia to a regional delivery model for the implementation of the National Action Plan for Salinity and Water Quality and the second phase of the Natural Heritage Trust.

The regional delivery process is regulated through bilateral agreements between the Australian and State Governments that define the relationship between the Australian and State Governments for the delivery of regional funding and include information relating to management relationships, development of regional strategies, accreditation processes, regional investment plans and approval processes, funding arrangements and reporting and acquittal requirements.

There were 56 NRM regions established across Australia with six NRM regions being identified in Western Australia, including the Avon, Northern Agricultural, Rangelands, South Coast, South-West and Swan regions. The size and nature of the six regions in Western Australia vary, with the Rangelands NRM region being by far the largest, covering over 90 per cent of the state, while the majority of the State's population is contained in the Swan and South-West NRM regions.

Each of the regions were required to develop a regional strategy based on a whole-of-region approach to address significant NRM issues incorporating environmental, social and

economic aspects. These regional strategies identify strategic, prioritised and achievable actions to address the range of NRM issues and achieve the regional targets. The strategies also form the basis of rolling investment plans that guide the delivery of funds in the region. While the format and structure of the strategies varies between regions, each strategy sets out:

- the regional targets to be achieved consistent with the National Framework for NRM standards and targets;
- information on how the plan was developed, including community consultation;
- the information base used for planning, including biophysical and socioeconomic;
- proposed strategies and activities and justification for their adoption;
- processes for assessing and mitigating the social and economic impact of achieving the objectives of the plan;
- implementation arrangements, including identification of responsibilities;
- information on how the plan is consistent with other planning processes; and
- arrangement for review, monitoring and evaluation.

Both the Australian and State Governments have accredited all six regional NRM strategies.

Definitions

Common terms used in the strategies and referred to in this review include;

Aspirational targets – long-term targets which are aspirational statements about the desired condition of natural resources in the longer term (50 + years).

Resource condition targets – medium-term targets (10-20 years) largely relating to resource condition, which set specific, time bound and measurable goals which progress towards meeting aspiration targets.

Management action targets – short-term targets (1-5 years) designed to contribute towards progress of the longer-term resource condition targets.

Management Actions – steps required to meet management action targets.

2. Level of recognition and understanding of land use planning processes at State, regional and local levels

Land use planning has been widely recognised as a powerful and flexible tool through which local and State Government can consider and promote NRM matters in its decision-making processes. Recognition and understanding of the land use planning process is therefore integral when using this process to achieve NRM outcomes.

The level of recognition and understanding of land use planning processes varies greatly between the six NRM regional strategies. Understandably, recognition and understanding is strongest in the Swan and South-West strategies as these regions are experiencing the greatest population growth, land use change and development pressure, as compared with other regions. Both of these strategies recognise the various stages of land use planning at which NRM matters can be considered, and contain actions and targets specifically related to the

land use planning process. Planning legislation and policy were also recognised as important considerations in the preparation of the strategy.

The South Coast, Avon and Rangelands demonstrated a good to fair understanding, with the Northern Agricultural Region Strategy generally having a poor level of understanding of the land use planning process, with limited recognition to the role of land use planning in NRM being given in the strategy.

To improve the understanding of the role land use planning can play in NRM, a summary of the planning documents affecting each region, their status, and a brief indication of how they can contribute to implementing NRM strategy actions would be a useful tool to be included in each of the strategies. Such a summary would also indicate which local governments in each region have operational local planning strategies, as some do not while other local governments are currently preparing local planning strategies. The summary could either be prepared as a supplementary document to guide implementation and the drawing up of future investment plans, or included in the strategies themselves as part of any review of the strategies. Although some of the regions' NRM strategies have appendices that go some way towards doing this, none has a summary of how each individual planning tool can contribute to achieving NRM outcomes.

This summary of planning documents, in combination with recognition of the NRM issues relevant to land use planning and the planning mechanisms suitable for addressing these, should indicate the potential of the land use planning system to achieve NRM outcomes.

3. Relevance and achievability of overarching objectives, resource condition targets, management action targets and management actions to land use planning

There are a number of shortcomings associated with most of the objectives, targets and actions of the NRM regional strategies that are relevant to land use planning. Specific objectives, targets and actions identified can be sourced from the accompanying papers specific to each NRM region. In general the following shortcomings and recommendations for addressing them were identified as common to most of the NRM regional strategies:

In some regions, the relevant strategy's recommendations (particularly both management action targets and management actions) are fairly limited, in absolute terms and/or in relation to the potential for the strategies to make detailed recommendations about integrating NRM into the land use planning process. Only in the South-West Region Strategy is the range of recommended targets and actions close to being sufficiently extensive. This concern is valid, notwithstanding the much more limited potential for land use planning to achieve NRM outcomes in broadacre agricultural or pastoral areas. A review of these recommendations should be made for the various strategies, with implementation through the land use planning system in mind. The revised recommendations could be included in revised strategies, or in supplementary documents to guide implementation.

Some of the management actions proposed in the NRM regional strategies require the undertaking of activities or actions that are largely influenced by the actions of local or State Government in terms of the legislative and policy frameworks that govern land use planning decision-making processes. The following management actions provide such examples:

- review land use planning process and identify cleared land suitable for development;

- review design codes for new urban areas;
- develop recommendations for local and regional structure planning processes;
- develop mechanisms to preferentially locate new developments on previously cleared land;
- changing natural resource planning processes to take into account climate change and variability;
- reviewing statutory planning processes to take into account various NRM issues;
- incorporating guidelines on NRM issues in local, regional and state planning processes; and
- reviewing environmental protection policies and state planning policies.

Given that NRM regional groups have no statutory powers or formally recognised responsibilities for land use planning, it will be impossible for them to achieve proposed actions) without the cooperation and commitment of local and State Government. None or very little detail is provided as to what progress or strategies are in place to foster cooperation and commitment of local and State Government to such actions. Furthermore, what role the NRM regional groups will fulfil or how they will support State or local government to undertake land use planning related management actions proposed in the strategies is generally absent. As suggested previously, a review or audit of the management actions should be undertaken in conjunction with the DoP and local governments to ascertain roles and responsibilities, resources required and feasibility and achievability of the management actions.

Some of the targets, particularly resource condition targets, had not been decided and set at the time of the release of some of the strategies. Where these targets have now been determined, it is necessary to update the strategies accordingly (or the summary of their recommendations which is incorporated in new investment plans). If the determination of any of these targets is still outstanding, the

targets should be determined as quickly as possible, given the length of time that has now elapsed since initial release of the strategies, and the significant amounts of investment and expenditure taking place based on the strategies.

Management action targets and resource condition targets need to be unambiguous and easily measurable. Some of these targets from the various strategies should be rewritten accordingly.

Some of the targets are overambitious. This is usually because of the proposed time frame rather than the actual work required to meet the target. The targets need to be realistic, being cognisant of the resources available to local governments in particular, but also to state government agencies. Reviewing and amending legislation, policies, strategies and local planning schemes can be time-consuming and, particularly given the processes involved in amending statutory documents, are necessarily lengthy. Such review and amendment of documents may also be seen by each local government or agency as a relatively low priority during a time of strong economic growth in the State and the difficulty many have in attracting and retaining experienced planning staff.

Some recommendations are made in a strategy for a particular region that would impinge on other regions. One example is the recommendation in the South-West's strategy that a state planning policy on water-sensitive urban design be prepared. Such a state planning policy would presumably be applicable throughout the State. These recommendations may have merit, but it should be acknowledged in the relevant strategy that there are jurisdictional issues and that this may affect the achievability of the targets.

The limits of the land use planning system in addressing NRM issues need to be recognised. For example, recommendations for local planning schemes to address management issues relating to broadacre farming or pastoral operations would generally not be effective

given the lack of change from one land use to another. This means applications for planning approval are rarely required, enforcement of any scheme provisions relating to extensive agricultural use could be well beyond the planning resources and expertise available to rural and remote local governments.

4. Partnerships between NRM regions and local and State Government

All six NRM regional strategies recognise in some way the need for and importance of partnerships between the NRM community and local and State Government, with comments to this effect in each strategy. The level of specific commitments to enhancing such partnership varies widely.

As alluded to in section 3, resources (actual officer/consultant time) and expertise (experience with both NRM issues and the land use planning system) are required to integrate consideration of NRM issues into strategic and statutory planning documents. There are three aspects to these requirements. Firstly, there are the resources and expertise required in the initial review and alteration of planning documents. Secondly, there is an ongoing requirement to ensure that those making land use planning decisions (on subdivisions, development applications, structure plans and rezoning proposals) are well informed with respect to whether the proposal is consistent or compliant with the NRM provisions in those planning documents. Thirdly, some of the planning decisions (particularly subdivision and development applications) may result in conditions that require compliance monitoring (for example, revegetation of a portion of land resulting from subdivision).

Regional NRM groups, state agencies and local governments need to explore and reach agreement on the best arrangements for meeting the above requirements. Memoranda of understanding or similar agreements, along with appropriate budget commitments, may then be necessary to ensure the agreements are acted on.

One issue that such memoranda of understanding or similar agreements could address is the commitment required from State and local government agencies to carry out recommendations (management actions) of the regional strategies where these cannot occur without the relevant State and local government agencies' support and actions. This has not been addressed in any significant detail in the various strategies, with respect to processes or strategies to foster such cooperation and commitment from local and State government. It is also necessary to better clarify what role the NRM regional groups will fulfil and how they will support State or local government to undertake the land use planning related management actions proposed in the strategies. A review or audit of the management actions should also be undertaken in, conjunction with the DoP and local governments, to ascertain roles and responsibilities, resources required and the feasibility and achievability of the management actions.

Various models could be, and indeed are, used in addressing the issue of resourcing and appropriate expertise. Larger local governments and state government agencies with more of a land use planning function could and do employ specific officers to deal with environmental planning. For most of the smaller local governments this would be impractical. Expertise could be made available as required to these local governments (and to any other stakeholders in the process requiring it) by officers in relevant state government agencies, or employed by regional NRM groups, or by regional organisations of councils. Appropriate funding arrangements will be required. Programs for training local government planners, environmental officers or other staff in NRM, land use planning and the intersection between the two would have merit, but given the high turnover of staff in such positions, such training may be required on a fairly regular, ongoing basis.

Information required by local governments and other decision-makers does not only come in the form of verbal or written advice from technical

officers. Commitments are also required to share geographic information system based data and other forms of data on NRM issues between all relevant stakeholders. The NRM Shared Land Information Platform hosted by DAFWA provides online access to most NRM datasets. Some of the datasets will require further analysis and interpretation to make them more useful for supporting land use planning decision-making.

It is important to acknowledge that under the *Environmental Protection Act 1986*, local planning schemes and local planning scheme amendments are referred to the EPA for a decision on the level of environmental assessment required. The underlying ethos behind this is that the suitability of particular land for proposed uses will be determined at the zoning stage, so that it is not necessary for all subsequent development and subdivision applications to be subject to environmental assessment. Because of this, there is to some extent a mindset among some local governments and other planning authorities that the consideration of environmental matters in the land use planning system is primarily or solely the responsibility of the EPA or the department working for it (now the DEC). As the EPA/DEC are not resourced to carry out this entire role (and as it is clear from legislation and EPA draft Guidance Statement No. 33 that some consideration of environmental matters will be required of other decision-makers in the planning system), it will be necessary for this mindset to be changed and for other stakeholders in the NRM process to accept responsibility for their part in ensuring NRM outcomes are achieved by the planning system.

5. Specific NRM issues, targets or actions that could be addressed by the land use planning process

Provided in this section is a list of specific issues and recommendations that can be addressed by the land use planning process. Items on the list have been identified on the basis that available statutory or strategic land use planning mechanisms are, or should be, able to realistically contribute towards achieving the

relevant NRM objective or target, though this does not infer that land use planning alone is sufficient to address most of the items. It should be noted that the significance of the contribution that land use planning can make will vary from item to item.

The list should not be seen as exhaustive. Such a list, along with the land use planning mechanisms available to address each issue, target or action should be compiled for each NRM region and made available to local governments and other relevant stakeholders. This could be in the form of a tool box of options for using the planning system to address specific NRM issues. This data should be based on current and successful examples from across the state and also, where relevant, throughout Australia.

Some of the NRM issues and recommendations that can be addressed by land use planning include:

- protection of land of agricultural significance from urban and peri-urban encroachment;
- protection of basic raw materials resources from urban and peri-urban encroachment;
- preventing or limiting exposure of acid sulfate soils;
- rehabilitation, treatment and/or avoidance of contaminated sites;
- adaptation to salinisation and rising groundwater levels;
- ensuring land use reflects land capability;
- protection of the quality and quantity of ground and surface water supply sources;
- protection of water quality and minimisation of erosion through water-sensitive urban design;
- minimising eutrophication and other pollution of surface and groundwater;
- appropriate buffers between development and coastal, estuarine, and waterway foreshores;

- floodplain management;
- protection of wetlands;
- preventing or limiting inappropriate modification of waterways and surface run-off;
- protection of biodiversity;
- preventing or limiting vegetation clearing (and its effects on environmental values and hydrology);
- protection of habitat from destruction and fragmentation;
- preservation and enhancement of ecological corridors;
- reduction of greenhouse gas emissions;
- reduction in car dependence by transport demand management;
- accounting for natural variability of shorelines in considering coastal development;
- accounting for sea level rise and increased storm surge arising from climate change in considering coastal development;
- protection of coastal habitat, landforms and processes;
- protection of air quality; and
- preservation of areas of cultural heritage values.

6. Land use planning mechanisms to resolve NRM issues, targets or actions

Land use planning mechanisms can be broken into statutory and strategic mechanisms. Statutory planning is given effect primarily by regional and local planning schemes, in the allocation by zoning of land for different uses, the consideration of subsequent rezoning proposals, and the determination of development applications (and setting of any conditions of approval) in accordance with scheme provisions. Structure planning and subdivision of land are also statutory planning

processes, governed partly by local planning schemes but also by WAPC policy.

At a local government level, the most significant strategic planning instrument should be the local planning strategy, although for many local governments in Western Australia these are still being developed or have yet to be developed. A local planning strategy should give the medium- to long-term strategic direction for the local government with respect to land use planning, and should inform decision-making under the corresponding local planning scheme(s). Thus, in considering a development application, a local government must have regard to background information, policy and guidance contained in the local planning strategy.

Although opinion on the appropriate amount and level of detail in a local planning strategy varies, it is clear that local planning strategies have the potential to provide significant direction on addressing NRM issues and achieving NRM outcomes. Local planning policies adopted under a local government local planning scheme can also guide decision-making under that scheme. At the State and regional level, state planning policies, a range of regional and sub-regional policies, strategies and structure plans, and WAPC development control policies are all mechanisms with the potential to be used to address NRM issues.

This section identifies land use planning mechanisms that can be used to resolve NRM issues and recommendations, identifying which mechanism(s) would be most appropriate in any case. As the list is not exhaustive, this does not exclude the use of other land use planning mechanisms to address the same issue.

Mechanisms that can be used to resolve NRM issues and recommendations include:

- Identification of land of state or regional agricultural significance in the review of local planning strategies and schemes or separately.
- Protection of land of state or regional agricultural significance from inappropriate fragmentation and land use change by identification in local planning

strategies, appropriate zoning and implementation of *State Planning Policy 2.5* and *Development Control Policy 3.4*.

- Identification of basic raw materials resources and required buffers in appropriate policies and strategic planning documents, particularly local planning strategies.
- The use of appropriate zoning or special control areas to secure basic raw materials resources and prevent intrusion of sensitive land uses into basic raw materials areas or their buffers.
- Identification of acid sulfate soils in local planning strategy mapping.
- Use of appropriate zoning or special control areas to minimise risk of disturbance of acid sulfate soils. In this instance, appropriate zoning means a zoning such that those activities most likely to result in acid sulfate soil disturbance in a particular area are discretionary or not permitted (eg subdivision for residential development).
- Scheme provisions dealing with risk of exposing acid sulfate soils.
- Identification of, appropriate zoning of, and scheme provisions relating to contaminated sites. In this instance, appropriate zoning means a zoning such that the range of permissible uses is limited to those which would be acceptable on the site, given the level and nature of contamination and the practicality of remediation. This does not imply that zoning should be used to excuse landowners from necessary site remediation, but recognises that, for instance, residential development might be an unacceptable ultimate use of some contaminated sites given the limitations of remediation.
- Consideration of townsite salinity management plans in local planning schemes and amendments, subdivisions and development applications to prevent or minimise new development and

infrastructure in areas threatened by salinisation and high watertables.

- Incorporation of special control areas and scheme provisions to give effect to townsite salinity management plans.
- New zoning proposals based on consideration of land capability data, with such data possibly being incorporated into local planning strategies.
- Local planning strategy recommendations or scheme provisions requiring land capability assessment prior to certain developments being carried out in certain areas.
- Special control areas, reservation and appropriate zoning of land and scheme provisions to reflect water source protection plans.
- Scheme provisions, local planning strategy or policy recommendations encouraging or requiring use of water-sensitive design for new development or subdivision.
- Identification of required buffers to foreshores and wetlands in strategies and policies, particularly local planning strategies, scheme provisions and zone boundaries.
- Appropriate zoning or reservation and scheme provisions to protect buffers to foreshores and wetlands.
- Policies, scheme provisions and special control areas to ensure appropriate floodplain management and the prevention of inappropriate development in floodplains. Alternatively, floodplain mapping can be included in local planning strategies, with scheme provisions referring to such mapping.
- Scheme provisions, special control areas, conservation zones, or subdivision or development incentives to control clearing and fragmentation of areas of significant biodiversity values.
- Parks and recreation (or similar) reservation in statutory region schemes

for areas of high conservation value, or reservation under local planning schemes.

- Requirement for planning approval for dams.
- Identification of ecological corridors in local planning strategies and other strategic planning documents.
- Special control areas or scheme provisions protecting ecological corridors from clearing and/or inappropriate development.
- Scheme provisions incorporating revegetation conditions relating to ecological corridors, or more generally.
- Implementation of state planning policies and development control policies, regional planning strategies and strategic documents, local planning strategies and structure plans to achieve transport demand management, reduction of car dependence, viability of public transport, ease, safety and desirability of walking and cycling, mixed use development and appropriate integration of land use and transport.
- Sustainability assessment (perhaps using checklists) for development and subdivision applications.
- Consideration of State Coastal planning policy in all relevant new schemes and amendments, local planning strategies and coastal structure plans and subdivisions.
- Identification of cultural heritage values in local planning strategies and other strategic planning documents.
- Heritage precincts, special control areas, use of heritage lists, transferable development rights and development incentives and other specific scheme provisions to protect cultural heritage values.

7. Key recommendations

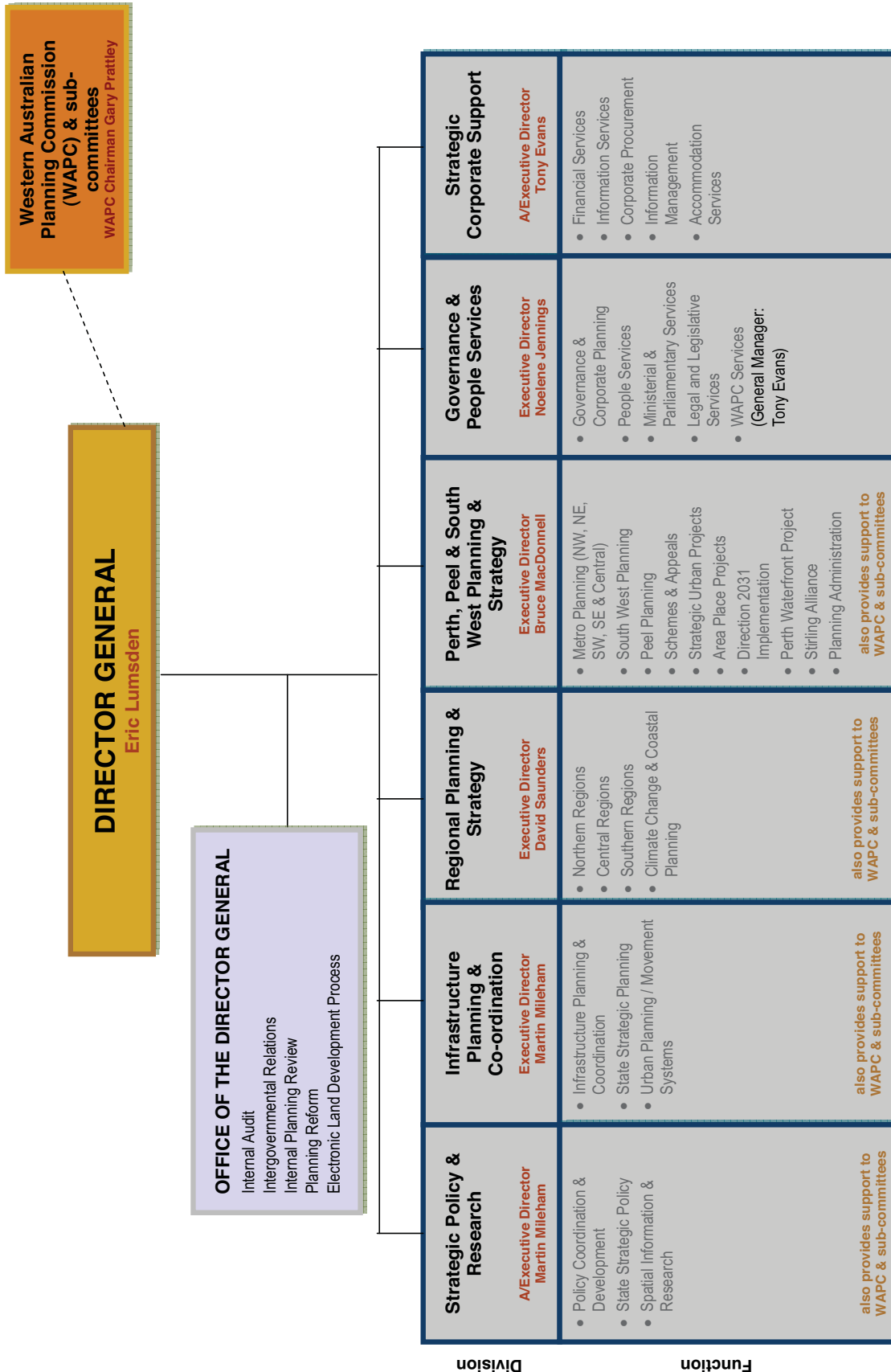
Based on the review of the six NRM regional strategies, the following key recommendations are suggested for improving the effectiveness of the strategies and associated investment plans to support the integration of NRM into land use planning processes:

1. Prepare a summary of the planning documents affecting the NRM region, their status and a brief explanation of how they can contribute to the resource condition targets, management action targets and actions of the NRM strategy.
2. Using section 5 and 6 of this review as a guide, identify from the NRM strategy those issues, targets and actions relevant to land use planning and those land use planning mechanisms suitable for resolving the identified issues, targets and actions.
3. In consultation with DoP and local government, define roles and responsibilities, resources required and feasibility and achievability of the management actions. It may be appropriate to formalise roles and responsibilities and allocation of resources through memoranda of understanding or similar.
4. Modify those land use planning related resource condition and management action targets to ensure that they are unambiguous and measurable.
5. Acknowledge the limits of land use planning in addressing NRM issues, particularly in relation to broadacre farming or pastoral operations.

The NRM regions are encouraged to liaise with EnviroPlanning for further support and direction for addressing these recommendations. Furthermore, EnviroPlanning will be using the information and recommendations contained in this report and the accompanying papers as the basis for delivering training aimed at improving the understanding and awareness of

the NRM regional groups and their associated stakeholders of the opportunities to address NRM considerations through land use planning processes. Similarly, EnviroPlanning will be using this report to facilitate an improved understanding by local and State Government of the NRM regional process and the synergies between the NRM regional strategies and the land use planning responsibilities of local and State Government.

Appendix 4: Department of Planning organisational chart as at November 2010



Appendix 5: Department of Environment and Conservation administrative boundaries



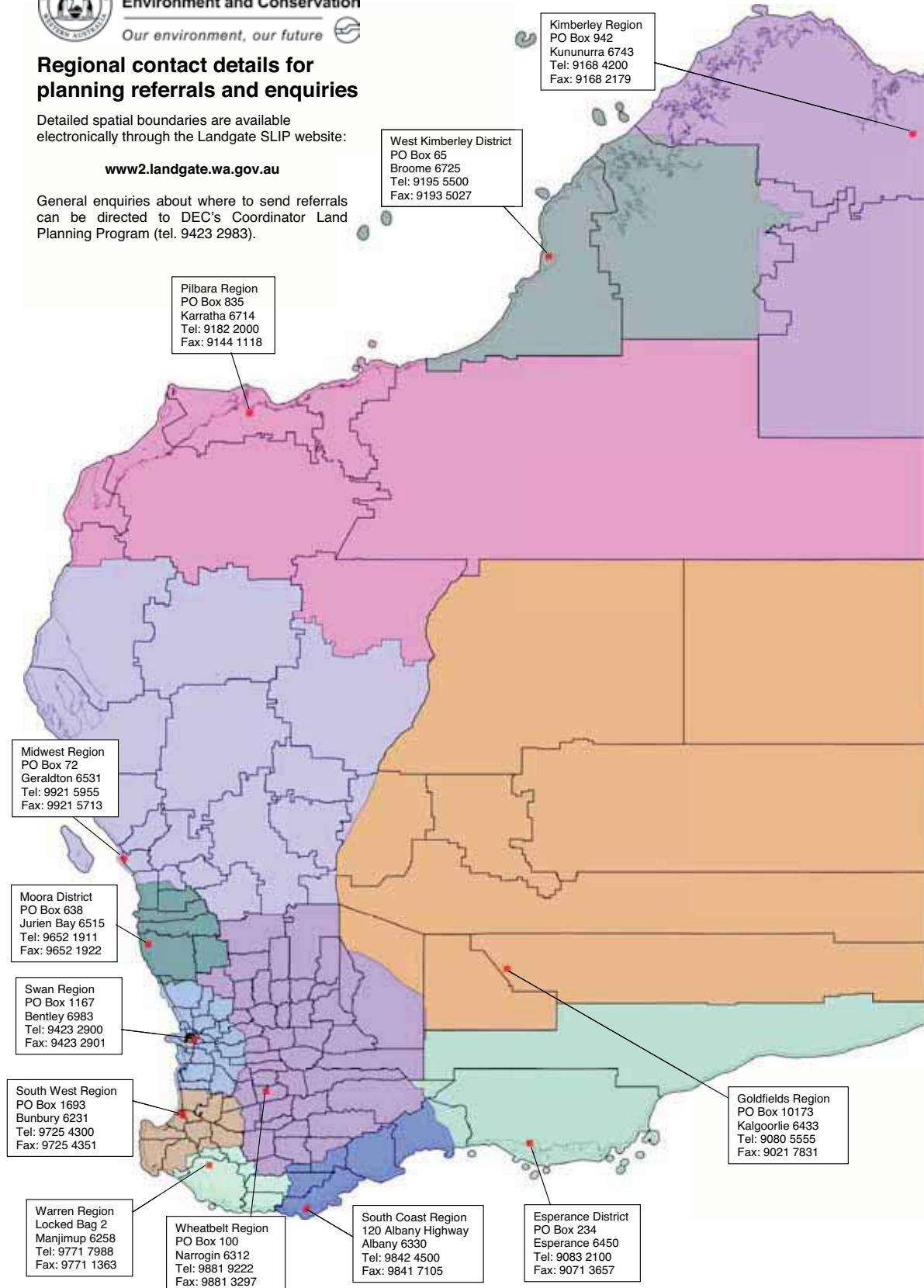
Department of
Environment and Conservation
Our environment, our future

Regional contact details for planning referrals and enquiries

Detailed spatial boundaries are available
electronically through the Landgate SLIP website:

www2.landgate.wa.gov.au

General enquiries about where to send referrals
can be directed to DEC's Coordinator Land
Planning Program (tel. 9423 2983).



Appendix 6: NRM regions and constituent local governments

Northern Agricultural Region -

Northampton	Morawa	Moora
Chapman Valley	Three Springs	Dalwallinu
Mullewa	Perenjori	Victoria Plains
Geraldton - Greenough	Carnamah	Gingin
Irwin	Coorow	
Mingenew	Dandaragan	

Wheatbelt Region

Beverley	Kondinin	Tammin
Brookton	Koorda	Toodyay
Bruce Rock	Kulin	Trayning
Corrigin	Lake Grace	Victoria Plains*
Cuballing	Merredin	Wandering
Cunderdin	Mt Marshall	Wickepin
Dalwallinu*	Mukinbudin	Wongan-Ballidu
Dowerin	Narembeen	Wyalkatchem
Goomalling	Northam	Yilgarn
Kellerberrin	Pingelly	York
Kent	Quairading	

South Coast Region

Albany	Broomehill	Cranbrook
Denmark	Dundas	Esperance
Gnowangerup	Jerramungup	Kent*
Kojonup	Lake Grace*	Manjimup
Plantagenet	Ravensthorpe	Tambellup

South West Region

Manjimup*	Capel	Boddington
Nannup	Dardanup	Murray
Augusta-Margaret River	Katanning	Harvey
Busselton	Woodanilling	Collie
Bridgetown-Greenbushes	Wagin	West Arthur
Boyup Brook	Dumbleyung	Mandurah
Donnybrook-Balingup	Narrogin	Serpentine Jarrahdale

Perth Region

Rockingham	Fremantle	Claremont
Kwinana	Melville	Nedlands
Cockburn	Canning	Perth
Armadale	Belmont	Subiaco
Gosnells	Victoria Park	Cambridge
Kalamunda	South Perth	Vincent
Mundaring	East Fremantle	Bayswater
Swan	Mosman Park	Bassendean
Joondalup	Peppermint Grove	Stirling
Wanneroo	Cottesloe	

Rangelands Region

Wyndham - East Kimberley	Derby - West Kimberley	Halls Creek
Broome	East Pilbara	Port Headland
Roeburn	Ashburton	Exmouth
Canarvon	Upper Gascoyne	Meekatharra
Wiluna	Ngaanyatjarraku	Laverton
Menzies	Kalgoorlie Boulder	Dundas
Coolgardie	Yilgarn*	Sandstone
Leonora	Mount Magnet	Cue
Yalgoo	Murchison	Shark Bay
Northampton*		

(Those local government areas with a * next to their name indicates an area which is on the edge of a NRM region or they are involved in two regions).

Appendix 7: Review of State Planning Policies and Development Control Policies

State Planning Policies

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
1	State Planning Framework Policy (Variation No 2)	February 2006							<p>The policy notes that the primary aim of planning is to provide for the sustainable use and development of land. It also provides general principles for land use planning and development from the State Planning Strategy, one of which is the environment. It is important to note that the SPP provides some guidance, although limited, on resolving conflicts between the policies, strategies or guidelines listed under the SPP.</p>	<ul style="list-style-type: none"> ○ Update Part A of policy to reflect contemporary environmental principles/ensure all relevant considerations are included. ○ Update the policy to provide further direction on the concept of sustainability and the use of it as a framework for achieving a balance between key considerations, tradeoffs, and contradictions between different policies. ○ In the interests of integrating NRM into planning decision making, the policy should acknowledge that this does not necessarily need to occur through the preparation of individual SPP's relating to environmental matters, rather can be achieved by ensuring that consideration of environmental matters is recognised in all policies. ○ Update policy to reflect current policies, plans and strategies. ○ Promote the use of guidelines to support implementation of State Planning Policies and to provide clarification on regional differences for state wide policies.

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
2	Environment and Natural Resources Policy	June 2003	✓	✓	✓	✓	✓	✓	<p>The policy has three objectives to:</p> <ul style="list-style-type: none"> integrate environment and natural resource management with broader land use planning and decision-making; protect, conserve and enhance the natural environment; and promote and assist in the wise and sustainable use and management of natural resources. <p>The objectives provide the context for broad policy measures relating to water resources, air quality, soil and land quality, biodiversity, agricultural land and rangelands, minerals, petroleum and basic raw materials, marine resources and aquaculture, landscapes, greenhouse gas emissions and energy efficiency.</p>	<ul style="list-style-type: none"> As the majority of issues covered by SPP No. 2 are addressed in more detail by other SPP's (e.g. Water Resources SPP 2.9, Agricultural and Rural Land Use Planning SPP 2.5) there is potential to consider removal of this SPP provided the following is undertaken: <ul style="list-style-type: none"> Broad principles and policy measures from this SPP, where not already included in the State Planning Strategy are integrated as part of any update to the State Planning Strategy Development of state wide SPPs for native vegetation and basic raw materials Expand the scope of SPP 3.4 Natural Hazards and Disasters to include land degradation hazards such as salinity and acid sulphate soils The Guidelines for this SPP that are being prepared will still be relevant as an overall guide to implementing environmental considerations through other SPPs. Specific reference to Climate Change is noticeably absent from this SPP, consequently it is recommended that an audit be undertaken of the State Planning Framework to identify how climate change mitigation and adaptation measures are currently addressed, with a view to consolidating and addressing gaps through integration of additional climate change mitigation and adaptation measures into existing policies.
2.1	Peel-Harvey Coastal Plain Catchment Policy	February 1992	✓		✓	✓			<p>The policy aims to ensure that land use changes within the Peel Harvey Estuary likely to cause environmental damage are brought under planning control and prevented. This policy addresses the issues of intensive agriculture, connection to sewer for new developments, retention of vegetation, drainage and water supply.</p>	<ul style="list-style-type: none"> An opportunity exists to remove this policy through integration of relevant elements into existing SPPs: <ul style="list-style-type: none"> the component related to agricultural management can be incorporated into SPP 2.5 under special provisions relating to Peel Harvey Catchment Content related to the water management can be addressed under SPP 2.9

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
2.2	Gnangara Groundwater Protection	August 2005			1				<p>The purpose of the policy is to prevent, control or manage development and land use changes in the Gnangara groundwater protection area that are likely to cause detrimental impacts on groundwater resources. The focus is on protection of the groundwater resource for human use, although the environment and other uses are acknowledged in the objectives.</p>	<ul style="list-style-type: none"> There is potential to remove this policy through amalgamating it with the other groundwater and drinking water supply policies of SPP 2.3 Jandakot Groundwater Protection Policy and SPP 2.7 Public Drinking Water Source Policy. Consideration should also be given to the amalgamation of this policy, SPP 2.3 and 2.7 under SPP 2.9 Water Resources. Policy measures for land capability assessment should be reviewed to reflect the capacity of existing information and expertise within State and local government to effectively apply land capability assessment to land use planning decisions.
2.3	Jandakot Groundwater Protection Policy	June 1998			1				<p>The purpose of the policy is to prevent, control or manage development and land use changes in the Jandakot groundwater protection area that are likely to cause detrimental impacts on groundwater resources. The focus is on protection of the groundwater resource for human use, although the environment and other uses are acknowledged in the objectives.</p>	<ul style="list-style-type: none"> There is potential to remove this policy through amalgamating it with the other groundwater and drinking water supply policies of SPP 2.2 Gnangara Groundwater Protection Policy and SPP 2.7 Public Drinking Water Source Policy. Consideration should also be given to the amalgamation of this policy, SPP 2.2 and 2.7 under SPP 2.9 Water Resources. Policy measures for land capability assessment should be reviewed to reflect the capacity of existing information and expertise within State and local government to effectively apply land capability assessment to land use planning decisions.
2.4	Basic Raw Materials	July 2000						1	<p>The Policy seeks to identify the location and extent of known basic raw materials, assist planning decision making in respect to extractive industry applications and for proposals in the vicinity of extractive industries and ensure the extraction of basic raw materials does not adversely affect the environment. The policy currently only covers the Perth Metropolitan Region and the Shires of Gingin, Chittering, Northam, Murray, Toodyay and the City of Mandurah.</p>	<ul style="list-style-type: none"> Make SPP State wide Provide specific advice for regions where demand for development exists (eg Metropolitan Region and South West) Establish some parameters for tradeoffs where basic raw materials conflict with native vegetation Needs to provide direction on both strategic and reactive approaches to identification and extraction of basic raw materials. Basic Raw materials strategy should be prepared to identify possible locations to source basic raw materials.

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
2.5	Agricultural and Rural Land Use Planning	March 2002	}	}	}	}			<p>SPP 2.5 seeks to protect agricultural land, plan for rural settlement, minimise land use conflict and manage natural resources. Implementation of the policy is reliant on mapping to identify agricultural areas of State and regional significance and access to technical expertise to assess land capability. DPI/WAPC is currently reviewing and updating the policy.</p>	<ul style="list-style-type: none"> ○ If no additional resources can be provided to assist identification of agricultural areas of State and regional significance and provision of expertise to support land capability assessment then the policy measures of the SPP should be amended to facilitate protection of agricultural land without a reliance on priority agricultural mapping or expertise on agricultural land use capability. ○ Policy measures for land capability assessment should be reviewed to reflect the capacity of existing information and expertise within State and local government to effectively apply land capability assessment to land use planning decisions. ○ Recognise that rural residential development is a form of urban development and that guidance on planning for rural residential development will therefore be provided through SPP 3 Urban Growth and Settlement ○ Include guidance on farm forestry and carbon rights and acknowledge that tree planting for carbon rights should be directed away from priority agricultural areas. ○ Develop guidelines for determining the requirements of water tanks to assist in ensuring their reliability as an alternative water supply. ○ Include guidance on stocking rates and include other relevant measures from SPP 2.1 ○ Buffers for incompatible land uses should comply with EPA Guidance Statement 33 ○ Resolve any inconsistencies with DC 3.4 (conservation zones and covenants) and PB 56 (farm forestry and carbon rights)

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
2.6	State Coastal Planning Policy	June 2003							<p>The policy applies to the coast throughout WA and seeks to protect coastal values, provide public access to the coast, assist identification of areas for sustainable use of the coast for housing, tourism, recreation and commercial activities.</p>	<ul style="list-style-type: none"> ○ Where a coastal planning strategy has been prepared after latest gazettal of SPP, that coastal planning strategy should take precedence over the SPP ○ Refine coastal setbacks to reflect latest estimates for sea level rise. ○ Coastal vulnerability study is required to assist further refinement of coastal setbacks. ○ Establish a clear hierarchy and relationship between strategies, management plans and foreshore plans ○ Review definition of development node as it is currently too broad as it may vary from a grouping of recreational facilities to an urban area.
2.7	Public Drinking Water Source Policy	June 2003							<p>The policy seeks to ensure that land use and development within public drinking water supply areas is compatible with the protection and long-term management of water resources for public water supply.</p>	<ul style="list-style-type: none"> ○ Amalgamate SPP 2.2 and 2.3 under this SPP and give further consideration to amalgamation under SPP 2.9
2.8	Draft Bushland Policy for the Perth Metropolitan Region	July 2004							<p>The policy provides a framework for the identification and protection of significant bushland areas in the Perth Metropolitan Region.</p>	<ul style="list-style-type: none"> ○ A state wide native vegetation policy should be prepared and include a section that provides mention of region specific plans such as Bush Forever.
2.9	Water Resources	December 2006							<p>The policy seeks to protect significant water resources, maintain availability of water in a quantity and quality suitable for meeting human and biological requirements through its sustainable use.</p>	<ul style="list-style-type: none"> ○ Consider possible amalgamation of SPPs 2.2, 2.3 and 2.7 under this SPP ○ Include water related policy measures from SPP 2.1 ○ Include relevant policy measures from Busselton Wetlands Conservation Strategy ○ Development of guidelines to assist implementation of SPP. Guidelines should include better urban water management framework and wetland buffers ○ Include recognition of the cultural values of water resources
2.10	Swan-Canning River System	December 2006							<p>The policy provides guidance regarding how the environmental values of the Swan and Canning River system should be considered in planning decision making.</p>	<ul style="list-style-type: none"> ○ The driver for the preparation of the precinct plans needs to be defined (e.g. no further development will be considered in the absence of a precinct plan).

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
3	Urban Growth and Settlement	March 2006		Y				Y	<p>The policy aims to facilitate sustainable patterns of growth and settlement. It identifies specific objectives to recognise climatic, environmental, heritage and community values and constraints, as well as reducing energy, water and travel demand. In its current state the SPP provides no new policy rather reiterates and interprets existing policy (e.g. network city, liveable neighbourhoods, SPP 2.5). Attempts to address urban planning issues throughout the State, but provides limited direction on urban planning in regional areas.</p>	<ul style="list-style-type: none"> o Guidance should be developed to assist planning for the expansion of urban areas and establishment of new towns through establishing a settlement hierarchy that includes: <ul style="list-style-type: none"> • Perth Metropolitan Region • Regional Centres • Rural Towns • Rural farming • Remote aboriginal communities o Recognise the need to address peri urban (interface between urban and rural land) issues in and around Perth Metropolitan Region and other Regional Centres. o Rural residential development should be acknowledged as a lower density form of urban development that should occur adjunct to an urban area. o Rural residential development should include requirements for sustainable development such as water conservation, revegetation and use of alternative energy sources
3.1	Residential Design Codes	April 2008			Y			Y	<p>The purpose of the R-Codes is to provide a comprehensive basis for the control, through local government, of residential development throughout WA. One of the objectives of the R-Codes is to encourage environmentally sensitive design.</p>	<ul style="list-style-type: none"> o If not already incorporated into the National building codes, the R-Codes should be reviewed to introduce performance based criteria (such as energy and water conservation/efficiency) as a way of increasing densities and encouraging environmentally sensitive design. o Table 1 of the R-Codes should be reviewed as it supports higher density for single dwellings than it does for grouped or multiple dwellings. o To further reduce sprawl and encourage higher density development, each R code should have a minimum development density.

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
3.2	Planning for Aboriginal Communities	August 2000	✓	✓	✓			✓	The policy applies to the planning and development of large permanent Aboriginal communities. The policy seeks to improve the standard of living and quality of life of people living in Aboriginal communities. The policy in its current form has little direct relevance to NRM but has potential to better address NRM through consideration of such issues as water and energy conservation, revegetation and land use buffers.	<ul style="list-style-type: none"> Provide guidance on buffers between land use that have potential to conflict with residential development (e.g. rubbish tip, effluent disposal and generator). Encourage revegetation and COAG principles that support the minimisation of energy and water demand, as a requirement to be considered when developing community layout plans.
3.4	Natural Hazards and Disasters	April 2006	✓	✓	✓		✓		The purpose of the policy is to encourage local governments to adopt a systematic approach to the consideration of natural hazards and disasters as part of the planning and approvals process. This includes consideration of flooding, severe storms and cyclones, storm surge, coastal erosion, bush fires, landslides and other land movements and earthquakes. There is potential to address NRM issues such as salinity and acid sulfate soils through broadening the scope of the SPP.	<ul style="list-style-type: none"> Consideration should be given to the inclusion of acid sulfate soils, salinity and land degradation as natural hazards.
3.6	Draft Development Contributions for Infrastructure	May 2008		✓	✓	✓	✓		The policy sets out the principles and considerations that apply to development contributions for the provision of infrastructure in new and established urban areas.	<ul style="list-style-type: none"> Guidance through examples could be provided on how developer contributions have been used to protect environmental assets.
4.1	Draft State Industrial Buffer Policy	July 2004	✓						The purpose of the policy is to protect industry and avoid conflict with sensitive land uses. Environmental assets are currently not recognised as a sensitive land use.	<ul style="list-style-type: none"> Recognise environmental assets as a sensitive land use. Clarify and define the role of land use planning in determining buffers
4.2	Metropolitan Centres Policy Statement for the Perth Metropolitan Region	October 2000						✓	The principle purpose of the policy is to provide a broad regional planning framework to coordinate the location and development of retail and commercial activities in the metropolitan region. It is mainly concerned with the location, distribution and broad design criteria. It is through the broad design guidelines where an opportunity exists to better address NRM issues such as energy and water conservation.	<ul style="list-style-type: none"> Include design requirements that encourage water conservation (e.g. harvesting of water from roof to support shopping centre water requirements for activities such as cleaning and landscaping) and energy conservation.

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
4.3	Poultry Farms Policy	December 1998	)	)	)	)	)	)	The policy provides advice to determine rezoning, subdivision and development applications for poultry farms, as well as identifies the considerations for applications in their vicinity. The main NRM issue is in relation to odour; however noise, dust and visual impacts are also relevant.	<ul style="list-style-type: none"> Could possibly remove this policy and include under the industrial buffers SPP 4.1 through recognition of poultry farms as an agricultural industry.
5.2	Telecommunications Infrastructure	March 2004	)	)	)	)	)	)	The policy provides a framework for the preparation, assessment and determination of applications for planning approval of telecommunications facilities. One of the objectives of the policy is to minimise disturbance to the environment through provision of telecommunications infrastructure.	<ul style="list-style-type: none"> Include requirement for no net environmental impact Review the Guidelines for the Location, Siting and Design of Telecommunications Infrastructure, which supports implementation of the policy, to ensure that they reflect contemporary environmental planning principles.
6.1	Leeuwin-Naturaliste Ridge Policy	January 2003	)	)	)	)	)	)	This policy aims to achieve creative, vital and sustainable communities living in balance with economic development and the unique landscape and environmental values of the policy area. It provides direction for the consideration of all relevant NRM issues. The policy is considered a good example of the type of guidance that can be provided through regional plans to address issues that occur over more than one local government.	<ul style="list-style-type: none"> Policy statement 2.3 relating to the clearing of native vegetation should be reviewed to ensure compliance with native vegetation clearing provisions of the Environmental Protection Act Policy measures that relate to soil capability assessment should be reviewed to reflect the capacity of existing information and expertise within State and local government to effectively apply land/soil capability assessment to land use planning decisions. Review Guidelines to ensure that they reflect contemporary environmental planning principles.
6.3	Ningaloo Coast	August 2004	)	)	)	)	)	)	The policy provides guidance on the sustainable development of the Ningaloo Coast, which includes an objective to "preserve and protect the natural environment and enhance and rehabilitate degraded areas within the environment". It also contains guiding principles, including sustainable development, protection of high conservation values and protection of biodiversity. The policy gives status to the Ningaloo Coast Region Strategy that already has status through SPP 1.	

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
	Metropolitan Freight Network (draft) and Road and Rail Transport Noise (Draft)	May 2005	)	)	)	)	)	)	<p>The two SPPs are to be combined as one, with the aim of identifying and protecting the freight road and rail network as well as minimise the adverse impact of freight transport noise on adjacent development. The policies seek to minimise adverse environmental impacts.</p>	<ul style="list-style-type: none"> o Include requirement for no net environmental impact when locating and developing freight handling facilities o Include design requirements that encourage water conservation (e.g. harvesting of water from roof to support the freight handling centre water requirements for activities such as cleaning and landscaping) and energy conservation.
	Network City (Draft)	March 2006	)	)	)	)	)	)	<p>The aim of the policy is to confirm the status of Network City: Community Planning Strategy for Perth and Peel, Network City framework and action plan as the metropolitan plan for Perth and Peel. Network City has a number of objectives that have relevance to NRM including: deliver urban growth management, align transport systems and land use to optimise accessibility and amenity, deliver an energy efficient transport system and protect and enhance the natural environment and open spaces.</p>	<ul style="list-style-type: none"> o As Network City supersedes Metroplan, remove reference to Metroplan in SPP1.

Development Control Policies

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
1.1	Subdivision of Land - general principles	June 2004						|	<p>The policy sets out the general principles, which will be used by the WAPC in determining applications for the subdivision of land. The policy currently has a number of objectives, but none that relate specifically to environmental or sustainability outcomes. From an NRM perspective, the policy's greatest relevance is that it requires subdivision applications to demonstrate:</p> <ul style="list-style-type: none"> o sustainable and environmentally responsive design o creation of a positive sense of place and identity based on natural and cultural assets. 	<ul style="list-style-type: none"> o Include the following objectives based on the principles of the 'National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design': <ul style="list-style-type: none"> • to ensure an integrated approach to subdivision design that facilitates sustainable development outcomes and accounts for whole of lifecycle processes; • to facilitate subdivision design that reduces the need to travel, supports the use of public transport, cycling and walking and promotes an energy and water efficient urban form; • to facilitate the optimal use of land and existing and future infrastructure assets; • to ensure the sustainable use of land suitable for primary production • to ensure waste and storm water is effectively managed and reused • to ensure that all lots that are created, are orientated to maximise solar passive building design • to ensure subdivision design facilitates adaptation over time (e.g. flexibility exists for increased density around public transport nodes) • Introduce principle of innovative subdivision design that is guided by performance based criteria to achieve better environmental and development outcomes. • For ease of reference and to minimise duplication, guidance on structure planning should occur in one policy, as such section 3.3 of the policy should be amalgamated with broader guidance on structure planning.

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
1.2	Development control – general measures	August 2004						)	The policy sets out the general principles that will be used by the WAPC in its determination of applications for approval to commence development in areas covered by the Metropolitan Region Scheme and Peel Region Scheme. The policy currently contains an objective that relates to promoting development that is sustainable and appendix 2 recognises that the responsible authority may require an environmental study.	<ul style="list-style-type: none"> ○ Include objectives based on principles 1-6 of the 'National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design'
1.3	Strata titles	September 2003	)			)			This policy provides guidance for the use and approval of Strata Title proposals. It makes reference to land capability in rural areas for on-site wastewater treatment systems and the need to consider agricultural activity when determining appropriate lot sizes. Although not explicitly mentioned in the policy, there is an opportunity for strata developments to achieve biodiversity protection outcomes where areas of remnant vegetation are precluded from development and managed as part of the strata requirements.	<ul style="list-style-type: none"> ○ Include a policy measure titled 'Strata Titles for Conservation' that provides direction on the use of strata titles for facilitating retention and management of natural areas.
1.4	Functional Classification for Planning							)	The policy establishes a road classification system for use in planning new road networks. The relevance of the policy to NRM relates to its potential to promote alternative forms of transport.	<ul style="list-style-type: none"> ○ Include an objective based on principle 2 the 'National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design' ○ The road hierarchy described in the policy should make links to and promote alternative forms of transport (e.g. public transport, walkability and cycle paths) ○ Include policy measures that maximise residential densities around those road classifications that support bus routes
1.5	Bicycle Planning						)	)	The policy seeks to ensure that planning provides for a safe and convenient movement of cyclists to encourage transfer of journey from car to bicycle. The policy has relevance to NRM through encouraging a more sustainable form of transport.	<ul style="list-style-type: none"> • Include policy measures that provide: • Guidance on setbacks for bike paths adjacent to river and coastal foreshores to protect infrastructure from storm surge and sea level rise. • Guidance on minimum requirements for provision of bicycle parking at end of trip facilities. • Guidance on retrofitting existing urban areas with cycling facilities.

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
1.6	Planning to support transit use and transit oriented development	January 2006						)	<p>The policy seeks to maximise the benefits of an effective and well used public transport system by promoting planning and development outcomes that will sustain and public transport use, and which will achieve the more effective integration of land use and public transport infrastructure. The policy has relevance to NRM through encouraging a more sustainable form of transport.</p>	<ul style="list-style-type: none"> • Include objectives based on principle 2 and 3 of the 'National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design' • Include policy measures that provide • Guidance on achieving minimum residential densities for transit precincts. • Guidance on considering environmental values when planning transit oriented developments.
1.7	General Road Planning	June 1998				)		)	<p>The policy promotes planning of road networks that maximise efficiency, safety and amenity. The policy could have some minor relevance to NRM through recognising the role of road reserves in retaining and supporting street trees.</p>	<ul style="list-style-type: none"> • Include an objective based on principle 2 of the 'National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design' • Incorporate guidance on the width of road reserves required to retain street trees.
1.8	Canal estates and other artificial waterway developments	February 1999	)		)		)		<p>The policy sets out the requirements for assessment and approval of canal estate developments, artificial waterways, harbours and marinas. The policy requires a rezoning of land before development of canals, artificial waterways, harbours and marinas will be supported. It is expected that environmental assessments of such developments will occur when the scheme is amended.</p>	<ul style="list-style-type: none"> - Support review of the policy - Due to the adverse environmental impacts and associated ongoing management requirements of canals and artificial waterways with an ornamental purpose, these types of development should not be supported - Policy on Marinas should be developed
1.9	Amendments to the Metropolitan Region Scheme	November 2003							<p>The policy outlines the procedure for processing major and minor amendments to the Metropolitan Region Scheme. The policy recognises the role of the EPA in the scheme amendment process.</p>	
1.10	Location and design of freeway service centres	August 2001							<p>The policy outlines the circumstances and criteria under which a freeway service centre may be used and developed. The policy recognises that approval from other agencies will be required for environmental matters such as groundwater protection, effluent disposal, and waste disposal and landscaping.</p>	

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other Issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
G	Guidelines for lifting of urban deferral	June 2000							<p>The policy outlines process and requirements that need to be satisfied before land can be transferred from urban deferred zone to the urban zone. The policy has relevance to NRM through recognising the role of the EPA in assessing land proposed to be zoned urban deferred through an amendment to the region scheme and through recognising the natural environment as an issue that needs to be addressed through a structure plan prior to the lifting of urban deferral.</p>	<ul style="list-style-type: none"> Whilst the focus of the policy is on the lifting of urban deferral, it is important to note that the use of urban deferred zoning in circumstances where environmental issues still need to be resolved is considered inappropriate as it creates the expectation that the entire land area will eventually be developed for urban uses and the opportunities to protect environmental assets are limited. To guard against unrealistic development expectations it is considered more appropriate that for land where environmental issues have not been resolved, the land should remain rural zoned, rather than be zoned urban deferred.
2.2	Residential subdivision	July 2003						<p>The policy establishes WAPC's position regarding residential subdivision. There is potential for the policy to have greater relevance to NRM through promoting appropriate solar orientation of residential lots and water sensitive urban design.</p>	<ul style="list-style-type: none"> Include objectives based on principle 2 and 3 of the 'National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design' 	
2.3	Public open space in residential areas	May 2002							<p>The policy sets out the requirements of the WAPC for public open space and the provision of land for community facilities in residential areas. The policy has relevance to NRM as once land is zoned for residential development; often the only opportunity to retain environmental assets is through public open space.</p>	<ul style="list-style-type: none"> Modify third objective of the policy to read 'to protect and conserve bushland, wetlands and foreshores'.
2.4	School Sites	October 1998							<p>The policy sets out general criteria and design standards for the provision of school sites in residential areas. The policy has potential relevance to NRM through encouraging school sites to be located close to bushland to assist environmental education outcomes. Also the co-location of school facilities with other community facilities, particularly areas for active recreation, has potential to free up public open space for protection of environmental assets.</p>	<ul style="list-style-type: none"> Include objectives based on principle 2, 3 and 5 of the 'National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design' Update to reflect Liveable Neighbourhoods or rescind

		Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
2.5	Special residential zones	June 1998			)	)			The policy sets out the requirements for special residential zones to allow for lots of a size which offer a style of spacious living densities lower than residential developments but higher than those found in special rural zones. From an NRM perspective special residential zones are an ineffective form of residential development as it promotes an inefficient use of land and resources. This form of low density residential development is inconsistent with the National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design.	
2.6	Residential Road Planning	June 1998			)		)		The policy sets out the WAPC's requirements for the planning and design of roads in residential areas. The policy has some relevance to NRM through encouraging provision of accessible bus routes and pedestrian and cycle networks, through the design of roads for residential development.	<ul style="list-style-type: none"> • Include recognition that the design of residential roads is an integral part of a more sustainable urban water management system. • Update to reflect Liveable Neighbourhoods or rescind
G	The Design and Geometric Layout of Residential Roads	June 1998							The guidelines provide suggested design criteria for each level of road hierarchy. The policy has very little relevance to NRM other than providing guidance on size street verges so that they have sufficient space to accommodate trees.	<ul style="list-style-type: none"> o Update to reflect Liveable Neighbourhoods or rescind
G	The preparation of local structure plans for urban release areas	June 1992					)		The guidelines provide direction on the requirements that should be addressed when preparing local structure plans. The guidelines have relevance to NRM in that they provide guidance on public open space, environmental considerations and stormwater drainage.	
G	The preparation, form and content of local housing strategies	December 1992							The guidelines provide a guide to the form, content and process of preparing a local housing strategy. Although providing limited direction, the guidelines do note the need to provide a more contained and energy efficient pattern of development.	<ul style="list-style-type: none"> o Update to reflect directions from Network City o Include objectives based on principle 2, 3, 5, 6 and 7 of the 'National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design'

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
3.4	Subdivision of rural land	February 2008	)	)	)	)			This policy seeks to guide the subdivision of rural land to achieve the objectives of SPP 2.5; to protect agricultural land, plan for rural settlement, minimise land use conflict and manage natural resources. The policy is highly relevant to NRM, but requires further policy measures to define requirements relating to land capability and alternative water sources.	<ul style="list-style-type: none"> o Policy measures for land capability assessment should be reviewed to reflect the capacity of existing information and expertise within State and local government to effectively apply land capability assessment to land use planning decisions.. o Develop guidelines for determining the requirements of water tanks to assist in ensuring their reliability as an alternative water supply, as well as establishing criteria for other alternative servicing arrangements. o Review policy so that it is consistent with SPP 2.5 and any proposed changes
3.7	Fire planning	October 2001					)		The policy seeks to ensure adequate fire protection for new subdivisions and related developments. The policy has relevance to NRM through recognising that consideration of fire hazard needs to occur in the context of landscape protection and bushland retention. Despite this no further guidance is provided on reconciling conflicts between bushland retention or landscape protection and fire hazard.	<ul style="list-style-type: none"> • Provide further guidance on reconciling conflicts between managing fire risk and retaining and protecting landscape amenity and bushland. For example location of proposed developments within bushfire risk areas and consideration of clearing required for building envelopes, fire breaks and bush fire protection zones as part of the decision making process.
G	Preparation of a local rural strategy	July 1989			)	)		)	The guidelines were prepared to assist local governments to prepare local rural strategies. The guidelines encourage identification of planning and management precincts to assist land use control and management. The guidelines although quite old, still have relevance in guiding local governments to address rural land use planning issues through their local planning strategies.	<ul style="list-style-type: none"> • The guidelines should be reviewed to reflect the capacity of existing information and expertise within State and local government to effectively apply land capability assessment to assist rural land use planning.

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
G	Land capability assessment for local rural strategies	July 1989	✓						The guidelines were developed to inform government and land developers of the Department for Agriculture's general methodology for land capability assessment. The guidelines also provide a simplified methodology to assist land capability assessment for local rural strategies. The methodology and level of information collection encouraged in the guidelines exceeds the capacity of local government to collect and interpret such information. Rather than focusing on guidance for the collection of land capability information, greater support and guidance for the use of existing land capability information to assist rural land use planning is required.	<ul style="list-style-type: none"> The guidelines should be reviewed to reflect the capacity of existing information and expertise within State and local government to effectively apply land capability assessment to assist rural land use planning.
G	Rural-residential development in the Perth Metropolitan Region	July 1992	✓		✓	✓			The guidelines provide advice regarding the location and form of rural residential development. The guidelines appear redundant as no reference is made to them in the current versions of SPP 2.5 and DC 3.4 which are the policies that deal with rural residential development.	<ul style="list-style-type: none"> Delete guidelines
4.1	Industrial subdivision	July 1988							The policy provides guidance on the design, shape of lots, road layout, servicing and open space requirements for the subdivision of industrial land. The policy has relevance to NRM as there is potential for the policy to provide direction on energy and water conservation measures, use of POS to protect environmental assets within industrial subdivisions and provision of buffers between adjacent uses.	<ul style="list-style-type: none"> Include objectives based on principle 1, 3 and 5 of the 'National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design' The use of buffers between the industrial land and adjacent land uses should be compatible with SPP 4.1 and EPA guidance
4.2	Planning for hazards and safety	June 1991	✓	✓			✓		The policy provides guidance in planning to prevent the occurrence of potentially hazardous events and to mitigate the effects of any such events. The principles of risk management can apply to natural hazards.	<ul style="list-style-type: none"> Update policy to reflect Contaminated Sites Act 2003 and SPP 3.4 Consideration should be given to the inclusion of acid sulfate soils, salinity and land degradation as natural hazards.

	Title	Date	Land degradation	Land use conflicts	Water resources	Biodiversity	Coastal	Other issues	Relevance to NRM	Recommendations for assisting improved integration of NRM into land use planning
G	Local commercial strategies	December 1991							The guidelines provide direction on developing local commercial strategies to address such matters as the size and location of shopping centres and their role in providing for a wide range of commercial, leisure and recreational and social services. Through modification the guidelines have potential to better address NRM issues such as energy and water conservation.	<ul style="list-style-type: none"> Include design requirements that encourage water conservation (e.g. harvesting of water from roof to support the Shopping centres water requirements for activities such as cleaning and landscaping) and energy conservation.
5.3	Use of land reserved for parks and recreation	December 1999				1			The policy provides advice on the use and development of land reserved for parks and recreation in the MRS and the process for obtaining development approval. The policy recognises that the use and development of land reserved for parks and recreation under the MRS shall be restricted to that which is consistent with facilitating its use for recreational or conservation purposes.	<ul style="list-style-type: none"> Include the following policy measures Developments should be consistent with principles 1, 5 and 6 of the 'National Planning Principles for Reducing Energy and Water Demand through Land Use and Infrastructure Design' Developments in reserves that have a conservation purpose are consistent with the reserve management plan.
6.1	Country coastal planning policy	June 1989					1		The policy provides general development requirements for coastal planning as well as specific guidance in relation to land use priorities, land tenure, ecological considerations including seal level rise, visual amenity, land capability and setbacks, soil protection, water quality, access and foreshore management.	<ul style="list-style-type: none"> Coastal setbacks should be reviewed to reflect predicted sea level rises.
6.3	Planning considerations in the metropolitan region for sources of public water supply and sensitive water resource areas	August 1989			1				The policy provides advice on how planning should address water resource issues, with a focus on public water supply areas, but also other areas having particular water resource management problems and where a proposal is of a scale likely to impact on environmentally significant surface or ground water features such as wetlands and rivers. The policy has been succeeded by SPPs 2.2, 2.3, 2.7 and 2.9 and the better urban water management framework.	<ul style="list-style-type: none"> Delete policy

Appendix 8: Draft guidance for the integration of natural resource management into local planning strategies

Introduction

Land use planning has been widely recognised as a powerful and flexible tool through which local and State Government can consider and promote NRM matters in its decision-making process. The local planning strategy is one such planning tool that can provide a strategic level of influence over NRM matters.

A local planning strategy is a strategic document that:

- Sets out the long-term planning directions for the local government over a 10-15 yr time frame;
- Provides a mechanism for applying State and regional planning policies at the local level; and
- Provides the rationale for proposed zoned and other provisions of the scheme.

The local planning strategy provides a valuable strategic planning tool to guide decisions on development, subdivision and rezoning in a sustainable development framework. It places particular emphasis on appropriate use and development of land, and minimisation of potential conflict. As a strategic document, the strategy has potential to be an important tool for implementing NRM priorities, providing planning policy settings are clearly defined in relation to proposed land use and development to ensure they deliver the NRM outcomes sought.

Guidance on the development of a local planning strategy is currently provided in the Planning Schemes Manual. The Guidance on the Format of Local Planning Strategies component of the manual, was developed and released in July 2000, and provides a

suggested format for achieving the objectives of a local planning strategy. Further draft guidelines have been prepared internally by the DoP to provide tips and advice to help with all aspects of strategy preparation, from project planning, to preparation and consultation. This guidance builds on these two documents to provide additional guidance on the process of integrating NRM considerations into a local planning strategy. It is not intended to provide a separate process for the development of a strategy, rather provide guidance on the stages of the current process at which NRM should be considered.

Methodology

The following five step process provides a guide for considering NRM issues in the context of preparing a local planning strategy. The key to ensuring good outcomes are achieved through the local planning strategy is to understand the role of the document and ensuring NRM considerations are integrated into decision-making and are not just considered outside of the planning context.

Step 1: Understanding vision, goals and key issues

The key to the successful integration of NRM into the local planning strategy is an understanding of the vision and goals of the local government in respect to its overall development.

The vision and goals define the desired future for an area and the way land will be used to meet the expectations of the local government and the community. This guides the development of the strategy and subsequently the priority setting of addressing NRM considerations. The

strategies and actions that arise from the local planning strategy should be based on the future direction the local government wishes to take.

Key NRM issues which may impact on the vision and goals of the local government should be raised at this initial stage.

Step 2: Collection of relevant data

A mistake commonly made in the preparation of local planning strategies is the collection of a range of information that is not necessarily relevant to the development of the strategy. It is important to determine what information is required based on the vision and goal setting exercise in step 1.

In collecting data, it is suggested that priorities for collecting NRM data be based on:

- areas under development pressure
- significant environmental values and assets
- significant land management issues

A good test for determining whether information is of relevance, is to ask the question: Will the information be relevant to future decision-making? It is not the purpose of a local planning strategy to include a state of the environment report, and too much information can result in important information being lost. If the information is not relevant, leave it out.

It is recognised that in some circumstances, particularly outside the Swan Coastal Plain, information may not be available at the time of preparing the local planning strategy and resources limited for the collection of additional data. Where this is the case, the identification of gaps in data can be as important as the collection of data itself, as this can then translate into actions required to address this issue.

There are many sources of information from local knowledge, local environment plans, and management plans, through to information held by relevant government agencies. To ensure

relevant information is collected and NRM issues are considered in the development of the strategy, early consultation is encouraged. This will aid in the identification of priorities, information sources, and potential assistance that may be available to the local government.

The consultation process undertaken may vary between local governments and can be done through correspondence, interviews or through a cross agency workshop. Such a workshop can be particularly useful when there are a number of issues affecting areas under development pressure. In undertaking consultation it is important to ensure adequate lead time is given to the agencies and NRM groups, that the goals and vision of the council are clearly articulated, and that the type of information being sought is specified.

When consulting with government agencies, the first point of call should be the regional office. A contact list for each of the agencies and other relevant NRM groups has been provided in Appendix 6.

Step 3: Assess the implications for planning

This step links in closely with step 2 and can be undertaken concurrently, as many of the implications for planning will be raised during consultation when seeking relevant information.

For each of the NRM issues/assets identified, the implications for planning and decision-making, in the context of the goals and vision of the council, need to be identified and assessed.

For each identified issue/asset consider potential planning implications such as:

- managing the impact of development on the natural environment;
- management of coastal development pressures;
- opportunities to enhance the natural environment;
- managing specific activities which impact on the environment;

- environmental sustainability objectives and measures, including energy efficiency and recycling;
- the need to direct where development should or shouldn't be located;
- management requirements; and
- the need for additional information.

Step 4: Data interpretation and objective setting

In this step the outcomes and the objectives in relation to NRM and land use planning that are being sought are set. This requires an analysis of the key NRM issues, the implications for planning and the opportunities and constraints of addressing NRM through the land use planning process. In setting objectives the following order of priority is recommended:

Priority 1 – addressing development pressure and the consideration of NRM factors in decision-making.

Priority 2 – the ability to address land management issues.

Essentially, this step is about identifying what the local government wishes to achieve in relation to NRM matters, how this relates to other considerations in the strategy and what takes priority.

Step 5: Make recommendations for implementation

The last stage in the process is the development of the implementation plan, in other words the strategies and actions required to meet the desired outcomes determined in step 4. This section is the most vital in ensuring that NRM considerations are adequately integrated into future decision-making.

Actions may include means of implementing strategies through the planning scheme (eg introducing scheme provisions, new zones, special control areas, new policy), actions to address gaps in information/knowledge

necessary to inform good decision-making, actions required to be undertaken prior to future development being considered, as well as actions relating to seeking funding, liaising with relevant agencies and monitoring and evaluation.

Strategies and actions should be clear and useable and be justified through steps 1 to 4. Consideration should also be given to the resources required to implement actions and the achievability of the actions.

Format/content

In general a local planning strategy will consist of two components, a background report and a strategy/implementation section. It is important that issues raised in the background component of the report are addressed in the strategy component, as it is the strategies and actions on which future decision-making will be based.

A suggested format for a local planning strategy is provided in the Model Schemes Manual along with guidance on the elements that should be incorporated to meet the requirements of the Model Scheme Text. A brief description of how consideration of NRM can be introduced into those elements is provided.

Whatever the format chosen by the local government, the local planning strategy should be written in such a way so that it is clear what the objectives, strategies and actions are, in order to result in a plan which can be easily communicated and implemented.

State and regional planning context:

The purpose of this element is to consider and interpret State and regional policy in the local context and identify plans and policies relevant to the local government area. Policy measures or recommendations that require further consideration or require some action at the local planning level should be identified.

Documents such as the State Sustainability Strategy, State Planning Strategy, State Planning Framework, and any relevant regional strategy or structure plan should be considered and elements relevant to NRM in the context of the strategy be drawn out.

There are a number of state planning policies that provide guidance on NRM matters and how they should be considered in the planning framework, a summary of which have been included in Appendix 7. Where relevant, these policies should be referenced and considered in the development of the local planning strategy.

Local government policy context

The local government policy context element allows a local government to incorporate aspects of their vision and management statement, the corporate plan and corporate objectives as well as significant local government policies and strategies relating to planning. Relevant local NRM plans that should be included may include a local environment plan, coastal management plans and any other plan that documents environmental issues of relevance to land use planning.

Profile and key issues

This element covers the key characteristics of the local government and the major influences on planning for the future, along with key issues that are required to be addressed by the strategy. In respect to NRM, a brief overview of the issues that may be considered by a local government is provided under the issues section. As mentioned, this should not consist of a comprehensive state of the environment report, rather detail the key NRM issues of relevance to future decision-making in the local government area. Early contact with environmental agencies can ensure key priorities are identified.

Strategic plan

The strategic plan is a spatial representation for future land use planning, development and conservation. It is important that key NRM assets and management requirements that have implications for planning be identified on the strategic plan, including issues such as water source protection areas, areas subject to flooding, priority agricultural land and key resource areas.

Aims, strategies and actions

This element forms the implementation component of the local planning strategy, and it is essential that NRM considerations are integrated into the decision-making framework rather than just isolated in a separate environmental component. The results of step 5 in the methodology should be incorporated into this element.

Considerations

Where possible, NRM considerations should be integrated throughout all sections of the strategy and not solely in a separate environmental strategy and actions section. The intent is to ensure that NRM considerations are made in all aspects of decision-making. Issues that a local planning strategy may address and require some consideration of NRM include, but are not limited to:

Local government area wide

(Strategies and actions that apply across the whole of the local government area)

- Transport and infrastructure
(Considerations may include sewerage disposal, transport corridors, rubbish disposal, energy supply, and water supply)

- Settlement patterns
(Considerations may include existing and future settlement patterns, location of future urban expansion, land requirements)
- Economic activity
(Considerations may include the need to protect primary industries, protection of significant agricultural land, mining activities, basic raw materials and tourism opportunities)
- Environment
(Considerations may include addressing land degradation, biodiversity conservation, reserve status)
- Heritage
(Considerations may include protection of natural heritage)

Precinct-based

(Strategies and actions that may apply to a particular precinct in the local government area)
These may include more development specific and area-specific strategies and actions.

Appendix 9: Shire of Northampton local planning strategy extract

The council may support rezoning of land to the rural conservation zone, outside of the Rangelands planning precinct, to facilitate subdivision of multiple conservation lots where the applicant can demonstrate:

- the vegetation has been identified and agreed worthy of protection in an approved strategy, catchment plan, or a specific assessment carried out by an appropriate expert on behalf of the subdivider, taking into consideration the principles for Clearing Native Vegetation contained in schedule 5 of the *Environmental Protection Act 1986*;
- the creation of lots will not create any additional needs for the provision of government or community services; and
- the remnant vegetation will be protected through special provisions relating to the land addressing issues such as fire management, fencing, clearing controls, stock control and ongoing management of bushland. These matters can be address holistically through an environmental management plan.

The resultant lots will:

- be covered by a minimum of 85 per cent remnant vegetation, wetland or significant natural feature unless the remaining portion of the parent lot is unviable for agricultural purposes or, in the case of innovative clustered survey strata subdivision, the area of native vegetation is protected under one common lot;
- be provided with an adequate water supply for domestic purposes, land management and fire fighting;
- have frontage to a constructed public road;
- be connected to essential infrastructure, including electricity and communications; and

- have an identified building envelope situated to minimise additional clearing and be of a sufficient size and shape to cater for the construction of a single dwelling, outbuildings and fire hazard separation zone.
- E. The creation of only one viable agricultural lot will be supported as a result of achieving a positive conservation outcome unless further subdivision complies with the minimum lot size requirements for that zone. This agricultural lot does not need to be rezoned to bushland protection.

Minimum lot sizes

Where the majority of the parent lot falls in 20 kilometres of the town centres of Northampton, Horrocks, Port Gregory or Binnu, as marked on figure within LPS the following minimum lot sizes will apply:

- 1 lot per 40 hectares where innovative cluster style survey strata subdivision is proposed; or
- 80 hectares where green titled subdivision is proposed.

Where the majority of the parent lots falls outside the 20 kilometre radius of the Northampton, Horrocks, Port Gregory or Binnu town centres, as marked on figure within LPS, the following minimum lot sizes will apply:

- 1 lot per 80 hectares where cluster style survey strata subdivision is proposed; or
- 160 hectares where green titled subdivision is proposed.

Lot yield will be calculated on the vegetated portion of the parent lot.

Appendix 10: Overview of guidance provided by State Planning Framework

NRM issue	Strategies	Schemes	Structure plans	Subdivision	Development
Land degradation					
Preventing or limiting exposure of acid sulfate soils	SPP 2 PB 64	SPP 2 PB 64	PB 64	PB 64	PB 64
Rehabilitation, treatment and/or avoidance of contaminated sites	SPP 2	SPP 2	SPP 2	SPP 2	SPP 2
Adaptation to salinisation and rising groundwater levels	SPP 2	SPP 2	SPP 2	SPP 2	SPP 2
Ensuring land use reflects land capability	SPP 2, SPP 2.5 DC 3.4 Land Capability Assessment G/L	SPP 2, SPP 2.5 DC 3.4 Land Capability Assessment G/L	SPP 2, SPP 2.5 DC 3.4	SPP 2, SPP 2.5 DC 3.4	SPP 2, SPP 2.5 DC 3.4
Land use conflicts					
Protection of land of agricultural significance from urban and peri-urban encroachment	SPP 2.5 Rural Strategy G/L	SPP 2.5 DC 3.4	SPP 2.5 DC 3.4	SPP 2.5 DC 3.4	SPP 2.5 DC 3.4
Protection of basic raw materials resources from urban and peri-urban encroachment	SPP 2.4	SPP 2.4	SPP 2.4	SPP 2.4	SPP 2.4
Use of buffers to minimise impact of conflicting land uses	SPP 4.1	SPP 4.1	SPP 4.1	SPP 4.1	SPP 4.1

NRM issue	Strategies	Schemes	Structure plans	Subdivision	Development
Water resources					
Protection of the quality and quantity of ground and surface water supply sources	SPP 2 SPP 2.1, 2.2, 2.3, 2.7, 2.9	SPP 2 SPP 2.1, 2.2, 2.3, 2.7, 2.9	SPP 2 SPP 2.1, 2.2, 2.3, 2.7, 2.9 DC 6.3	SPP 2 SPP 2.1, 2.2, 2.3, 2.7, 2.9 DC 6.3	SPP 2 SPP 2.1, 2.2, 2.3, 2.7, 2.9 DC 6.3
Protection of water quality and minimisation of erosion through water-sensitive urban design	SPP 2 SPP 2.9	SPP 2 SPP 2.9 PB 61	SPP 2 SPP 2.9 PB 61 DC 6.3	SPP 2 SPP 2.9 PB 61 DC 6.3	SPP 2 SPP 2.9 PB 61 DC 6.3
Minimising eutrophication and other pollution of surface and groundwater	SPP 2 SPP 2.9	SPP 2 SPP 2.9 PB 61	SPP 2 SPP 2.9 PB 61 DC 6.3	SPP 2 SPP 2.9 PB 61 DC 6.3	SPP 2 SPP 2.9 PB 61 DC 6.3
Appropriate buffers between development and coastal, estuarine, and waterway foreshores	SPP 2 SPP 2.6, 2.7, 2.9, 2.10	SPP 2 SPP 2.6, 2.7, 2.9, 2.10	SPP 2 SPP 2.6, 2.7, 2.9, 2.10 DC 6.3	SPP 2 SPP 2.6, 2.7, 2.9, 2.10 DC 6.3	SPP 2 SPP 2.6, 2.7, 2.9, 2.10 DC 6.3
Floodplain management	SPP 2 SPP 2.9	SPP 2 SPP 2.9	SPP 2 SPP 2.9 DC 6.3	SPP 2 SPP 2.9 DC 6.3	SPP 2 SPP 2.9 DC 6.3
Protection of wetlands	SPP 2 SPP 2.9	SPP 2 SPP 2.9	SPP 2 SPP 2.9 DC 6.3	SPP 2 SPP 2.9 DC 6.3	SPP 2 SPP 2.9 DC 6.3
Preventing or limiting inappropriate modification of waterways and surface run-off	SPP 2 SPP 2.9, 2.10	SPP 2 SPP 2.9, 2.10	SPP 2 SPP 2.9, 2.10 DC 6.3	SPP 2 SPP 2.9, 2.10 DC 6.3	SPP 2 SPP 2.9, 2.10 DC 6.3

NRM issue	Strategies	Schemes	Structure plans	Subdivision	Development
Biodiversity					
Protection of biodiversity	SPP 2, 2.8 (draft) DC 3.4 PB 69	SPP 2, 2.8 (draft) DC 3.4 PB 69	SPP 2, 2.8 (draft) DC 3.4 PB 69	SPP 2, 2.8 (draft) DC 3.4 PB 69	SPP 2, 2.8 (draft) DC 3.4 PB 69
Preventing or limiting vegetation clearing (and its effects on environmental values and hydrology)	SPP 2 SPP 2.1, 2.5, 6.1, 6.3	SPP 2 SPP 2.1, 2.5, 6.1, 6.3	SPP 2 SPP 2.1, 2.5, 6.1, 6.3	SPP 2 SPP 2.1, 2.5, 6.1, 6.3	SPP 2 SPP 2.1, 2.5, 6.1, 6.3
Protection of habitat from destruction and fragmentation	SPP 2 SPP 2.8 (draft)	SPP 2 SPP 2.8 (draft)	SPP 2 SPP 2.8 (draft)	SPP 2 SPP 2.8 (draft)	SPP 2 SPP 2.8 (draft)
Preservation and enhancement of ecological corridors	SPP 2 SPP 2.8 (draft) PB 69	SPP 2 SPP 2.8 (draft) PB 69	SPP 2 SPP 2.8 (draft) PB 69	SPP 2 SPP 2.8 (draft) PB 69	SPP 2 SPP 2.8 (draft) PB 69
Coastal					
Accounting for natural variability of shorelines in considering coastal development	SPP 2 SPP 2.6, 3.4, 6.3	SPP 2 SPP 2.6, 3.4, 6.3	SPP 2 SPP 2.6, 3.4, 6.3 DC 1.8, 6.1	SPP 2 SPP 2.6, 3.4, 6.3 DC 1.8, 6.1	SPP 2 SPP 2.6, 3.4, 6.3 DC 1.8, 6.1
Accounting for sea level rise and increased storm surge arising from climate change in considering coastal development	SPP 2 SPP 2.6, 3.4, 6.3	SPP 2 SPP 2.6, 3.4, 6.3	SPP 2 SPP 2.6, 3.4, 6.3 DC 1.8, 6.1	SPP 2 SPP 2.6, 3.4, 6.3 DC 1.8, 6.1	SPP 2 SPP 2.6, 3.4, 6.3 DC 1.8, 6.1
Protection of coastal habitat, landforms and processes	SPP 2 SPP 2.6, 3.4, 6.3	SPP 2 SPP 2.6, 3.4, 6.3	SPP 2 SPP 2.6, 3.4, 6.3 DC 1.8, 6.1	SPP 2 SPP 2.6, 3.4, 6.3 DC 1.8, 6.1	SPP 2 SPP 2.6, 3.4, 6.3 DC 1.8, 6.1

NRM issue	Strategies	Schemes	Structure plans	Subdivision	Development
Other issues					
Climate change and reduction of greenhouse gas emissions	SPP 2	SPP 2	SPP 2	SPP 2	SPP 2
	SPP 3	SPP 3	SPP 3	SPP 3	SPP 3
Reduction in car dependence by transport demand management	Network City SPP (draft)	Network City SPP (draft)	Network City SPP (draft)	Network City SPP (draft)	Network City SPP (draft)
	SPP 2	SPP 2	SPP 2	SPP 2	SPP 2
Protection of air quality	SPP 3	SPP 3	SPP 3	SPP 3	SPP 3
	Network City SPP (draft)	Network City SPP (draft)	Network City SPP (draft)	Network City SPP (draft)	Network City SPP (draft)
Preservation of areas of cultural heritage values	DC 1.6	DC 1.6	DC 1.6	DC 1.6	DC 1.6
	SPP 2	SPP 2	SPP 2	SPP 2	SPP 2
	SPP 2.4, 4.1, 4.3	SPP 2.4, 4.1, 4.3	SPP 2.4, 4.1, 4.3	SPP 2.4, 4.1, 4.3	SPP 2.4, 4.1, 4.3
	Draft freight SPP, draft Transport noise SPP	Draft freight SPP, draft Transport noise SPP	Draft freight SPP, draft Transport noise SPP	Draft freight SPP, draft Transport noise SPP	Draft freight SPP, draft Transport noise SPP
	SPP 3	SPP 3	SPP 3	SPP 3	SPP 3
	Network City SPP (draft)	Network City SPP (draft)	Network City SPP (draft)	Network City SPP (draft)	Network City SPP (draft)

Abbreviations:

DC – Development Control Policy

SPP – State Planning Policy

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