

A guide to managing and restoring wetlands in Western Australia

Legislation and policy

In Chapter 5: **Protecting wetlands**


Version 1



Australian Government



Department of
Environment and Conservation

Our environment, our future 

Introduction to the guide

Western Australia's unique and diverse wetlands are rich in ecological and cultural values and form an integral part of the natural environment of the state. *A guide to managing and restoring wetlands in Western Australia* (the guide) provides information about the nature of WA's wetlands, and practical guidance on how to manage and restore them for nature conservation.

The focus of the guide is natural 'standing' wetlands that retain conservation value. Wetlands not addressed in this guide include waterways, estuaries, tidal and artificial wetlands.

The guide consists of multiple topics within five chapters. These topics are available in PDF format free of charge from the Western Australian Department of Environment and Conservation (DEC) website at www.dec.wa.gov.au/wetlandsguide.

The guide is a DEC initiative. Topics of the guide have predominantly been prepared by the department's Wetlands Section with input from reviewers and contributors from a wide range of fields and sectors. Through the guide and other initiatives, DEC seeks to assist individuals, groups and organisations to manage the state's wetlands for nature conservation.

The development of the guide has received funding from the Australian Government, the Government of Western Australia, DEC and the Department of Planning. It has received the support of the Western Australian Wetlands Coordinating Committee, the state's peak wetland conservation policy coordinating body.

For more information about the guide, including scope, purpose and target audience, please refer to the topic 'Introduction to the guide'.

DEC welcomes your feedback and suggestions on the guide. A publication feedback form is available from the DEC website at www.dec.wa.gov.au/wetlandsguide.

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These topics are available in PDF format free of charge from the DEC website at www.dec.wa.gov.au/wetlandsguide.

'Legislation and policy' topic

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Disclaimer

While every effort has been made to ensure that the information contained in this publication is correct, the information is only provided as a guide to management and restoration activities. DEC does not guarantee, and accepts no liability whatsoever arising from, or connected to, the accuracy, reliability, currency or completeness of any material contained in this guide.

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ACRONYMS

| | |
|------|--|
| DEC | Department of Environment and Conservation |
| DIA | Department of Indigenous Affairs |
| DoF | Department of Fisheries |
| DoP | Department of Planning |
| DoW | Department of Water |
| EIA | Environmental impact assessment |
| EPA | Environmental Protection Authority |
| EPP | Environmental protection policy |
| SAT | State Administrative Tribunal |
| SPP | State Planning Policy |
| WAPC | Western Australian Planning Commission |



Important note

This topic provides an overview of environmental legislation and policy that contributes to wetland conservation in Western Australia. It is for general information purposes only. Whilst all care has been taken to ensure the accuracy of the information presented in this guide, it is not intended to be comprehensive and should not be seen as a substitute for professional legal advice. Legal advice relating to specific circumstances can be sought from a solicitor or, where the matter is in the public interest, the Environmental Defender's Office WA (Inc.): www.edowa.org.au.

Enacted: to make into law

Statute: a law enacted by State or Australian Parliament

Regulation: a law made under the authority of an Act of Parliament

Introduction

Legislation and policy has an important role in protection and management of wetlands in Western Australia. A range of Acts and policies provide for specific aspects of wetland protection and management in Western Australia, the most important of which have been described in this topic.

A range of other Acts that have a bearing on specific aspects of wetland management are outlined in relevant topics of the guide (for example, use of pesticides is outlined in the topics 'Wetland weeds' and 'Introduced and nuisance animals').

'Legislation' refers to laws **enacted** by state or Australian Parliament. A law can also be called an Act of Parliament or **Statute**, and often referred to as a statutory mechanism.

Statute also refers to the schedules, policies, or **regulations** formed under an Act, such as local planning schemes, environmental regulations and environmental protection policies (EPPs). These contain details of how a statute applies and as they are also enacted they are legally binding. Specifically, regulations are more commonly referred to as subsidiary legislation, and should be read in the context of the over-riding Act under which they apply.

Subsidiary legislation is often required to provide greater detail for the implementation of an Act in relation to a particular matter, such as to address specific issues, different applications in geographic regions, or schedules (lists) to which the Act is to apply. Subsidiary legislation can be passed or enacted more quickly than Acts, and hence provide the ability to amend the manner in which an Act might be implemented in relation to changing knowledge and understanding of the matters to which the Act applies. The Acts discussed in this topic are shown in Table 1.

Administrative policies and guidelines are also used to protect wetlands and while these are not statutory instruments, they provide direction for how Statutes may be applied, such as whether future planning and development is likely to be environmentally acceptable. These include State Environmental Policies (SEPs), state planning policies (SPPs), and guidelines and position statements of the Environmental Protection Authority (EPA). The policies discussed in this topic are shown in Table 2. Note that only government policies are covered.

Some policies are statutory rather than administrative (that is, they have the power of law). For example, gazetted environmental protection policies prepared under the *Environmental Protection Act 1986* are statutory, not administrative. In this topic, statutory policies are discussed in both the 'legislation' and 'policy' sections.

Legislation and policies are a reflection of community expectations and aspirations. Legislation and policies can best achieve these expectations and aspirations when the community participates in their development and application. Community engagement in decision-making processes is built into much of the legislation and policies covered in this topic, giving all members of the community a say in how WA's wetlands are protected and conserved.



Roles of agencies and decision-making authorities

The topic 'Roles and responsibilities', in Chapter 5 describes the roles of individuals and a range of community and government organisations in relation to wetland conservation and management more broadly. It describes many of the government agencies and decision-making authorities listed in this topic.

Table 1. Key Acts for wetland management and protection.

| Acts and Statutes | Legislative mechanisms relevant to wetland management and protection | Administering agency/ agencies | Minister |
|--|---|--|---|
| <i>Environmental Protection Act 1986</i> | <ul style="list-style-type: none"> • Function of the Environmental Protection Authority (Part II) • Development of policies for environmental protection (Part III) • Environmental impact assessment (Part IV) • Regulation of pollution, environmental harm and clearing (Part V) | Environmental Protection Authority (Parts I – IV) Department of Environment and Conservation (Part V) | Minister for Environment |
| <i>Wildlife Conservation Act 1950</i> | Protection of native flora and fauna | Department of Environment and Conservation | Minister for Environment |
| <i>Conservation and Land Management Act 1984</i> | Use, protection, and management of certain public land and waters | Department of Environment and Conservation Conservation Commission | Minister for Environment |
| <i>Planning and Development Act 2005</i> | <ul style="list-style-type: none"> • State planning policies • Region planning schemes • Local planning schemes • Subdivision and development control | Western Australian Planning Commission Department of Planning Local government | Minister for Planning |
| <i>Aboriginal Heritage Act 1972</i> | Conservation of and protection for places and objects of importance to Aboriginal people | Department of Indigenous Affairs | Minister for Indigenous Affairs |
| <i>Fish Resources Management Act 1994</i> | Protection of aquatic species and habitats | Department of Fisheries | Minister for Fisheries |
| <i>Rights in Water and Irrigation Act 1914</i> | Some protection of water resources in proclaimed areas. Assigns rights to take water from the environment. | Department of Water | Minister for Water |
| <i>Soil and Land Conservation Act 1945</i> | Protection of land degradation (erosion, salinity and flooding) which may impact wetland condition | Soil and Land Conservation Commissioner | Department of Agriculture and Food Minister for Agriculture and Food |
| <i>Land Administration Act 1997</i> | Management of pastoral lands | Pastoral Lands Board (through the Department of Regional Development and Lands) | Minister for Lands |
| Commonwealth Acts | | | |
| <i>Environment Protection and Biodiversity Conservation Act 1999</i> | <ul style="list-style-type: none"> • Protection and manage matters of national environmental significance • Regulations outlining the Australian Ramsar management principles | Department of Sustainability, Environment, Water, Population and Communities | Minister for Environment (C/wealth) |

Table 2. Key policies for wetland management and protection

| Policy | Publisher | Year |
|--|--------------------|-----------|
| <i>Wetlands Conservation Policy for Western Australia</i> | Govt. of WA | 1997 |
| <i>Draft Framework for mapping, classification and evaluation of wetlands in Western Australia</i> | DEC | In prep |
| <i>Draft Guideline for the Determination of Wetland Buffer Requirements</i> | DEC | In prep |
| <i>Guidelines checklist for preparing a wetland management plan</i> | DEC | 2008 |
| <i>WA Environmental Offsets Policy</i> | Govt. of WA | 2011 |
| <i>Environmental Protection (Swan Coastal Plain Lakes) Policy 1992</i> | Govt. of WA | 1992 |
| <i>Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998</i> | Govt. of WA | 1998 |
| <i>Environmental Protection (Western Swamp Tortoise Habitat) Policy 2011</i> | Govt. of WA | 2011 |
| EPA Position Statement No 4 <i>Environmental Protection of Wetlands</i> | EPA | 2004 |
| EPA Guidance Statement No 7 <i>Protection of the Western Swamp Tortoise Habitat, Upper Swan/Bullsbrook</i> | EPA | 2006 |
| EPA Position Statement No 9 <i>Environmental Offsets</i> | EPA | 2006 |
| EPA Guidance Statement No 10 <i>Levels of assessment for proposals</i> | EPA | 2006 |
| EPA Guidance Statement No 19 <i>Environmental offsets</i> | EPA | 2008 |
| EPA Guidance Statement No 28 <i>Protection of Lake Clifton catchment</i> | EPA | 1998 |
| EPA Guidance Statement No 33 <i>Environmental guidance for planning and development</i> | EPA | 2008 |
| EPA Guidance Statement No 40 <i>Management of mosquitoes by land developers</i> | EPA | 2000 |
| State Planning Policy 2 <i>Environment and natural resources policy</i> | WAPC | 2003 |
| State Planning Policy 2.1 <i>Peel-Harvey coastal plain catchment</i> | WAPC | 1992 |
| State Planning Policy 2.2 <i>Gnangara groundwater protection</i> | WAPC | 2005 |
| State Planning Policy 2.3 <i>Jandakot groundwater protection</i> | WAPC | 1998 |
| State Planning Policy 2.8 <i>Bushland Policy for the Perth Metropolitan Region</i> | WAPC | 2005 |
| State Planning Policy 2.9 <i>Water resources</i> | WAPC | 2006 |
| <i>Planning Bulletin 64/2009: Acid sulfate soils</i> | WAPC | 2009 |
| <i>Acid sulfate soils planning guidelines</i> | WAPC | 2008 |
| <i>Policy framework for inland drainage</i> | DoW | 2012 |
| <i>Better Urban Water Management Strategy</i> | WAPC | |
| <i>State Water Plan</i> | Govt. of WA | 2007 |
| <i>Water allocation planning in Western Australia: a guide to our process</i> | DoW | 2011 |
| <i>Stormwater management manual for Western Australia</i> | DoW | 2004–2008 |
| <i>Decision process for stormwater management in WA</i> | DoW | 2009 |
| <i>Wetland Policy of the Commonwealth Government of Australia</i> | Govt. of Australia | 1997 |

LEGISLATION FOR WETLAND CONSERVATION

There is no single Act that provides for every aspect of wetland management and protection. This topic provides an overview of the main statutory mechanisms that can assist in the protection of wetlands in WA. Other Acts not covered in this topic will apply generally to wetland areas, as they do to any area in WA, and their exclusion does not suggest that they do not apply (for example, the *Land Administration Act 1997* and the *Mining Act 1978*).

- ▶ For copies of WA's individual legislative acts and regulations, see the State Law Publisher's website www.slp.wa.gov.au/legislation/statutes.nsf/default.html.
- ▶ For copies of the Government Gazette, see the State Law Publisher's website www.slp.wa.gov.au/gazette/gazette.nsf
- ▶ For copies of Australian government legislation, see ComLaw online www.comlaw.gov.au
- ▶ For a guide to legislation designed specifically for primary producers, see *Production and environmental legislation: a guide for primary producers*.¹

Other relevant legislation that applies to wetland conservation and management activities are outlined in Table 3.

Table 3. Legislation relevant to specific wetland management activities, covered in other topics of this guide

| Activity | Key legislation | For more information |
|---|---|---|
| Managing sites with declared weeds | <i>Agriculture and Related Resources Protection Act 1976</i> | 'Wetland weeds' topic |
| Controlled burns, including local government permits | <i>Bush Fires Act 1954</i> | 'Wetland weeds' topic |
| Using herbicides | <i>Pesticides Act 1999</i> <i>Health Act 1911</i> <i>Agricultural and Veterinary Chemicals Code Act 1994</i> | 'Wetland weeds' topic |
| Managing non-native animals | <i>Pesticides Act 1999</i> <i>Agriculture and Related Resources Protection Act 1976</i> <i>Fish Resources Management Act 1994</i> <i>Animal Welfare Act 2002</i> | 'Introduced and nuisance animals' topic |
| Managing activities with the potential to affect acid sulfate soils | <i>Contaminated Sites Act 2003</i> | 'Water quality' topic |

STATE LEGISLATION

The *Environmental Protection Act 1986*

The *Environmental Protection Act 1986* (the EP Act) provides for an Environmental Protection Authority; for the prevention, control and abatement of pollution and environmental harm; and for the conservation, preservation, protection, enhancement and management of the environment. The Environmental Protection Authority (EPA) and the Department of Environment and Conservation (DEC) are responsible for administering specific aspects of this Act.

The EP Act consists of nine parts:

Part I – Preliminary

Part II – Environmental Protection Authority

Part III – Environmental protection policies

Part IV – Environmental impact assessment

Part V – Environmental regulation

Part VI – Enforcement

Part VII – Appeals

Part VIII – General

Part IX – Transitional

Aspects of these parts relevant to wetland protection are discussed below.

Part I – Preliminary

Part I provides an explanation of the terms used in the EP Act. It also states that the Act binds the Crown (that is, government agencies). It also provides the objective of the EP Act, to protect the environment of Western Australia, having regard for the following principles:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity
- principles relating to improved valuation, pricing and incentive mechanisms
- the principle of waste minimisation.

Part II – Environmental Protection Authority

Part II establishes the functions and powers of the Environmental Protection Authority (EPA). The EPA is the primary provider of independent environmental advice to government. It consists of five members, including a full-time chairman, each appointed by the Governor of Western Australia on the recommendation of the Minister for Environment. They meet fortnightly.

The objective of the EPA, as stated in Part II, is to protect the environment and to prevent, control and abate pollution and environmental harm. It assigns a range of functions and

powers to the EPA to achieve these objectives and furthermore states that the EPA is independent and cannot be directed by the Minister. The composition and appointment of the board of the EPA is prescribed. The operation of the meetings and staffing of the EPA is provided for, as well as the provision of services by staff of the Office of the EPA to assist the EPA to perform its functions. It allows for the establishment of advisory groups, committees, councils and panels.

Functions under Part II include the provision of strategic advice to the Minister for Environment under section 16(e). The EPA has provided strategic advice on a range of matters that have significant bearing on wetland conservation. For example, the use of managed aquifer recharge using treated wastewater; and the future of the Dawesville to Binningup area (inclusive of the internationally significant Peel Yalgorup wetlands).

Environmental protection policies: statutory policies developed under Part III of the *Environmental Protection Act 1986*. They are whole-of-government policies that are ratified by Parliament and have the force of law as if part of the Act from the day they are published in the *Western Australian Government Gazette*.²

Part III – Environmental protection policies

Part III covers the full process of development of **environmental protection policies** (herein 'EPPs'). It describes the preparation, consultation, and publication of draft environmental protection policies by the EPA for consideration of the Minister for Environment.

EPPs are used by the state government to address environmental issues that could not otherwise be adequately addressed via other provisions of the Act. EPPs have been used to provide strong (legal) environmental policy positions and have been applied to a wide variety of environmental issues across various geographical scales.

An EPP may include:

- identification of the area of the environment to which it relates
- identification of the environmental values to be protected
- environmental quality objectives to be achieved by the EPP, a programme to achieve and maintain them and how they will be measured
- how the environmental area is to be protected from pollution and environmental harm and how any activities which might cause environmental harm could be prevented, controlled or abated
- creation of offences and provide penalties for any activities which cause undue environmental harm.

An approved EPP prevails over a town planning or region scheme unless the scheme was assessed by the EPA under Division 3 of Part IV (Assessment of schemes) of the EP Act. Approved EPPs are required to be reviewed within seven years of gazettal.

The EPA develops EPPs, however, it is DEC that has responsibility for investigating potential breaches. Penalties for breaches apply.

► Three EPPs directly relate to wetland protection:

- the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992*
- the *Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998*
- the *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2011*.

These policies are described in this topic in the section 'Policies for wetland conservation'.

Part IV – Environmental impact assessment

Part IV of the EP Act establishes the requirement for **environmental impact assessment** (EIA) of proposals that are likely to have a significant effect on the environment.

The EPA's objectives for environmental impact assessment include:

- (a) to ensure that proponents take primary responsibility for protection of the environment influenced by their proposals;
- (b) to ensure that best practicable measures are taken to minimise adverse impacts on the environment, and that proposals meet relevant environmental objectives and standards to protect the environment, and implement the principles of sustainability;
- (c) to provide opportunities for local community and public participation, as appropriate, during the assessment of proposals;
- (d) to encourage proponents to implement continuous improvement in environmental performance and the application of best practice environmental management in implementing their proposal; and
- (e) to ensure that independent, reliable advice is provided to the Government before decisions are made.³



The EPA provides advice, the Minister makes the decision

The EPA advises the Minister on the environmental acceptability of proposals and schemes. It is the government, through the Minister, who has responsibility for approving or refusing proposals and schemes under the EP Act. The EPA is not a regulatory agency and it does not issue approvals.

This part of the Act makes provisions for:

- the referral and assessment of proposals and schemes
- the preparation of a report by the EPA to the Minister on the outcome of its assessment
- conditions and procedures of implementation of proposals.

Section 122 of the Act also allows for the publication of specific administrative procedures to be followed during the environmental impact assessment process. These are the *Environmental Impact Assessment Administrative Procedures 2010*. These administrative procedures were published ('gazetted') in the **Government Gazette** No. 223.

Division 1 – Referral and assessment of proposals

Division 1 of Part IV of the EP Act outlines the process of referral and assessment of **significant** and **strategic proposals**.

The EP Act specifies who can refer significant and strategic proposals. In general, responsibility for referral of a proposal to the EPA rests with **decision-making authorities**.

Environmental impact assessment: an orderly and systematic process for evaluating a scheme or proposal, including its alternatives where relevant, and its effects on the environment, including the mitigation and management of those effects.³

Government Gazette: a government publication issued by the State Government which includes details of statutory matters, available from the State Law Publishers.

Significant proposal: a proposal likely, if implemented, to have a significant effect on the environment.

Strategic proposal: a future proposal that will be a significant proposal; or future proposals likely, if implemented in combination with each other, to have a significant effect on the environment.

Decision-making authority: a public authority empowered to make a decision in respect of a proposal. Often abbreviated to DMA.³

For example, subdivision and development applications are types of proposals that may require referral by planning agencies to the EPA. However, any person may refer a significant proposal, except if it comes under a scheme that has already been assessed. In this circumstance, only the **proponent** can refer the proposal. The EPA may also require a proponent or decision-making authority to refer a proposal if it considers it to be a significant proposal. If the referral is made by someone other than the proponent or the decision-making authority, it is known as a 'third party' referral.

Proponent: the person who is responsible for the proposal, or the public authority on which the responsibility for the proposal is imposed under another written law



Wetland triggers for referral to the EPA

The EPA has published an extensive list of wetlands that, for the purposes of environmental impact assessment, it considers to be of high conservation significance and to require a high level of protection. This list is available on page 4 of Chapter B4 of EPA Guidance Statement No. 33: *Environmental Guidance for Planning and Development*.³ A proposal that is likely, if implemented, to have a significant impact on any of these wetlands is likely to require referral to the EPA for environmental impact assessment. Examples of significant impacts include: clearing of native vegetation, mining, filling, excavating, draining or disposal of waste, allowing emissions into the wetland, and activities located near the wetland without the provision of an appropriate setback or buffer, such as clearing or groundwater abstraction.



Figure 1. Developments with the potential to impact upon wetlands of conservation significance are one kind of activity that may trigger referral of a proposal to the Environmental Protection Authority for environmental impact assessment under the *Environmental Protection Act 1986*. Photo – J Davis.

Determinations about the use and management of water

How water is used and managed is critical to protecting and managing WA's wetlands. Water management is regulated by a range of Acts, many of which are old and overlapping. Section 3 of the EP Act defines a 'proposal' as a project, plan, programme, policy, operation, undertaking or development or change in land use, or amendment of any of the foregoing, but does not include scheme. On this basis, proposals regarding water use and management can be subject to either section 38 (significant proposals) or section 40B (strategic proposals) of the EP Act; or the EPA may prepare strategic advice to the Minister for Environment under section 16(e).

When a proposal that has previously been assessed as a strategic proposal (under section 40B) and granted approval is referred to the EPA, the proponent has the right to request the EPA declare this a **derived proposal**. The EPA does not assess derived proposals. With changes introduced in 2010, there are no longer appeal rights on the EPA's decision to declare a referred proposal a derived proposal.

The EPA may request additional information on a referred proposal and once the information provided is sufficient, it will publish the referral information on the EPA website: www.epa.wa.gov.au/EIA/referralofProp-schemes/Pages/Publiccommentonreferrals.aspx. The EPA will provide a seven day public comment period on each referred proposal before it proceeds to make a decision on whether or not to assess the proposal, and if so the level of assessment. Comments on the referral information must be made using the Referral Comment Form available on the EPA website (on the webpage listed above).

The EPA is required to decide whether or not to assess the referred proposal within twenty-eight days of receipt of all required information. The EPA publishes this decision on its website and in the public notices in *The West Australian* newspaper on Mondays.

Anyone can appeal an EPA decision not to assess a proposal, with the exception of those circumstances where the EPA has recommended that the proposal be managed under the native vegetation clearing provisions of the EP Act (these provisions are described below, see 'Part V' information).

The assessment of a proposal is usually carried out using a standard set of procedures. The nature of the proposal determines which of the following two procedures, or 'levels of assessment' will be followed:

- assessment on proponent information (API), applied where the environmental acceptability or unacceptability of the proposal is apparent at the referral stage. A public review period is not considered necessary because either:
 - the proponent has appropriately and effectively consulted with the stakeholders during the preparation of the proposal, or
 - further consultation through a public review process is unlikely to identify additional stakeholders or raise additional significant environmental issues.
- public environmental review (PER), applied where:
 - the proposal is of regional and/or State-wide significance.
 - the proposal has several significant environmental issues or factors, some of which are considered to be complex or of a strategic nature.
 - substantial and detailed assessment of the proposal is required to determine whether, and if so how, the environmental issues could be managed.
 - the level of interest in the proposal warrants a public review period (generally 4–12 weeks).

The level of assessment determines what documentation and public review processes are required. With changes introduced in 2010, there are no longer appeal rights on the EPA's decision to assess a proposal or on the level of assessment.

- The procedures for each level of assessment, including public review processes, is shown in flow diagram format in Appendix 1 and 2.

Derived proposal: a proposal referred to the Environmental Protection Authority under section 38 of the *Environmental Protection Act 1986* that is declared by the EPA to have been identified in a strategic proposal that has been assessed and granted approval under Part IV of the Act⁴

Once the EPA has completed its assessment, it is required to prepare a report on the outcome of its assessment to the Minister which includes the key environmental factors identified and the EPA's recommendations as to whether or not the proposal may be implemented.

If it recommends that the proposal be allowed, any conditions and procedures that the proposal should be subject to will be detailed. An assessment is then required to be published and distributed to the proponent or referrer and to any other Minister or decision-making authorities to which the proposal relates.

The EPA and/or Minister also retain the right to inquire as to whether or not the implementation conditions relating to the proposal should be changed. Once the inquiry is complete, the EPA must report a recommendation to the Minister as to whether or not the implementation conditions should be changed.

extra information

How clearing of native vegetation is dealt with under Part IV

The regulation of clearing of native vegetation is primarily provided for under Part V of the *Environmental Protection Act 1986*. When a proposal that involves clearing is referred to the EPA under Part IV, the EPA will determine whether it will be assessed. Under Schedule 6 of the Act, if the proposal is assessed by the EPA, clearing of native vegetation that is done in accordance with an implementation agreement or decision is exempt from the requirement to obtain a clearing permit. The EPA can decide not to assess a proposal; if this occurs, the clearing of native vegetation may not be exempt and is subject to assessment under Part V of the Act.

Division 2 – Implementation of proposals

Once all appeals are decided upon, a Ministerial decision is made under section 45 of the Act. The Minister then serves copies of a statement setting out the implementation conditions and decision to the EPA, consulted decision-making authorities, the proponent and referrer (if this is not the proponent) and the statement is then published in the public notices of *The West Australian* newspaper and published on the Office of the Appeals Convenor website. If a decision is made that the proposal may not be implemented, the Minister shall notify relevant stakeholders and not issue a statement.

After a statement has been issued in relation to a proposal, the Minister may approve of the proponent changing the proposal without a revised proposal being referred to the EPA, where those changes to the proposal are not considered to have an effect on the environment different to the effect of the original proposal.

Once served a statement, the proponent is required to ensure that a proposal is implemented in accordance with implementation conditions; failure to do so is considered an offence.

- ▶ For more information, see the 'Environmental impact assessment' webpage of the EPA website www.epa.wa.gov.au.
- ▶ The Environmental Defender's Office of WA (Inc.) fact sheet *Environmental impact assessment in Western Australia*⁵ outlines the laws relating to EIA in WA.

Division 3 – Assessment of schemes

Division 3 assigns responsibility to the EPA to decide whether or not to assess a **scheme** referred to it and the actions to be taken once this decision is made.

Schemes generally establish the appropriate land uses for large areas of land. They include a map showing the zonings applied over a geographic area and accompanying text outlining the details of what kinds of land uses are allowed to occur. Schemes include regional planning schemes such as Metropolitan Region Scheme, local planning schemes for each local government area, and redevelopment schemes such as the East Perth Redevelopment Scheme.

The legislative process for scheme assessments was introduced in 1996 in recognition that in many instances it is more appropriate to apply environmental assessment at the rezoning or scheme formulation stage than to leave it to the subdivision or development stage.³ This principle is particularly relevant for wetlands. Providing for the protection of wetlands as part of broadscale planning processes is generally most effective. This is because wetland management and protection requires management of catchment scale processes, such as water management, and landscape scale processes such as ecological linkages and buffers.

- ▶ For a useful summary of the referral and assessment of schemes, see Chapter A3 'Environmental impact assessment of schemes' in EPA Guidance Statement No. 33, *Environmental Guidance for Planning and Development* (EPA 2008).
- ▶ A checklist of wetland issues to be considered during broadscale planning is available from Chapter B4 'Wetlands' in EPA Guidance Statement No. 33, *Environmental Guidance for Planning and Development*.³

The EPA is required to report to the Minister on the environmental factors relevant to the scheme and the conditions if any to which the scheme is to be subject.

This must occur within sixty days from the end of the public review period or thirty days after receiving a response to environmental issues raised in submissions or a period as the Minister allows. The Minister, after receiving the report and any recommendations made to him/her will publish the report and recommendations and provide copies to other Ministers concerned and to the responsible authority to which the scheme report relates. The Minister will then consult with the Minister of the responsible authority and if possible, agree with him/her on conditions, if any to which the scheme should be subject if implemented. If an agreement is reached, the Minister will provide copies of conditions to the Authority, the responsible Minister, the responsible authority and any relevant decision making authority and advise that there are no environmental reasons why the scheme should not be implemented.

A responsible authority may, after the publication of a statement of conditions and before the responsible Minister or the Governor grants final approval of the scheme, request the responsible Minister to initiate a review of the conditions set out in the statement. If the responsible Minister agrees to a request, the responsible Minister and the Minister shall consult each other and attempt to reach agreement on whether or not the relevant conditions should be altered and if so to what extent. If conditions are altered and an agreement is reached, copies of the new condition statement will be delivered to all the relevant stakeholders.

Scheme: a redevelopment scheme, a region planning scheme, a local planning scheme or a state planning policy to which section 32 of the *Planning and Development Act 2005* applies, or an amendment to any of these.

Division 4 – Implementation of schemes

Under Division 4, a responsible authority is required to monitor the implementation of its assessed schemes and those proposals under its assessed schemes, to ensure those assessed schemes and proposals subject to conditions are in compliance and conditions are being implemented. If the responsible authority finds a condition has not been complied with, it is required to report this to the Minister and to exercise the power it has available under law in regards to the non-compliance.

When a proposal under an assessed scheme appears likely to have a significant effect on the environment comes to the attention of the responsible authorities in respect to the assessed scheme, the responsible authority must determine whether or not environmental issues raised by the proposal were assessed under the scheme and whether the proposal complies with the scheme and any conditions which it is subject. If the proposal does comply and environmental issues raised were assessed the proposal does not need to be referred to the EPA.

Clearing of native vegetation that is done in the implementation of a proposal made under an assessed scheme in accordance with a subdivision approval, a development approval or a planning approval given by the responsible authority is exempt from the requirement to obtain a clearing permit under Part V.

Part V – Environmental regulation

Part V establishes environmental regulation for pollution and environmental harm offences and clearing of native vegetation (including the declaration of environmentally sensitive areas).

It also provides for the administration of clearing permits, licensing and registration of prescribed premises, works approvals and licences and the circumstances under which the EPA may administer notices, orders and directions.

DEC has responsibility under this part of the Act for the licensing and registration of prescribed premises, licensing of controlled waste transporters, and administration of a range of regulations. It also monitors and audits compliance with clearing permits, works approvals and licence conditions, takes enforcement actions as appropriate, and develops and implements departmental permitting, licensing and regulatory policy.

Division 1 – Pollution and environmental harm offences

Division 1 establishes the following offences:

- to cause pollution or allow pollution to be caused;
- to intentionally or with criminal negligence emit an unreasonable emission or cause an unreasonable emission to be emitted from any premises;
- to cause or allow waste to be placed in any position which is likely to cause pollution; and
- to cause or allow to be caused, serious or material environmental harm.

Regulations may require **authorisation** for conduct that might cause pollution or environmental harm.

Authorisation: a licence, permit, approval or exemption granted, issued or given under the Part V environmental regulations



What is environmental harm?

Environmental harm includes:

- the direct or indirect harm to the environment involving removal or destruction of, or damage to, native vegetation or the habitat of native vegetation or indigenous aquatic or terrestrial animals; or
- alteration of the environment to its detriment or degradation or to the detriment of an environmental value; or
- alteration of the environment of a prescribed kind.

The definition of environmental harm is provided in section 3A of the EP Act. It also defines 'material' and 'serious' environmental harm. The objective of the EP Act is not to outlaw day-to-day activities which cause some trivial harm to the environment. To be an offence under the Act, the harm must be more than trivial or negligible.



Figure 2. Officers of DEC's Pollution Response Unit. Photo – P Nicholas/DEC.

Clearing: any act that kills, destroys, removes or substantially damages native vegetation in an area. This includes severing or ringbarking of trunks or stems, draining or flooding of land, burning of vegetation and grazing of stock or any other act or activity that causes damage to some or all of the native vegetation in an area.

Native vegetation: native aquatic or terrestrial vegetation, and includes dead vegetation unless that dead vegetation is of a class declared by regulation to be excluded from this definition but does not include vegetation in a plantation or which was intentionally sown, planted or propagated unless that vegetation was sown, planted or propagated as required under law

Division 2 – Clearing of native vegetation

In July 2004, significant changes were made to the EP Act and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 ('the clearing regulations') were enacted to introduce provisions that protect native vegetation while allowing for permitted clearing activities.

This part of the Act establishes it to be an offence to cause or allow **clearing of native vegetation** unless it is done in accordance with a clearing permit, or is exempt. The Act applies to all land in WA, including private property, public and Crown land, pastoral leases and mining tenements. Commonwealth lands are the only land that may not be subject to the clearing regulations. The Act also applies to all waters in the state, including rivers, streams, wetlands, dams and all other natural and artificial watercourses and waterbodies. It also applies to coastal waters which include marine areas within 3 nautical miles (5.5 kilometres) of the low tide mark.

The exemptions specified in Schedule 6 of the EP Act generally relate to activities that are authorised under other law. For example:

- clearing that is caused by the grazing of livestock on land held under a pastoral lease, provided that the grazing is not in breach of the *Land Administration Act 1997*, the pastoral lease or any relevant condition set or determination made by the Pastoral Lands Board.
- clearing authorised under a licence 'to take' protected flora under the *Wildlife Conservation Act 1950* as issued by DEC.⁶

Regulation 5 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 contains a further set of exemptions for day-to-day activities. Examples of the types of activities exempt under these regulations include clearing for firewood, clearing for vehicular tracks and clearing along fence lines. Some of these exemptions limit the amount of clearing for any purpose to a total of one hectare per property per financial year. Differing to the Schedule 6 exemptions contained in the Act, the exemptions under the regulations do not apply where the activity is proposed to be undertaken in an area declared to be an 'environmentally sensitive area' by the Minister for Environment.



What are environmentally sensitive areas?

There are a number of declared environmentally sensitive areas (ESAs) within Western Australia where the exemptions in the clearing regulations do not apply. Section 51B of the EP Act enables the Minister for Environment to declare by notice either a specified area of the state or a class of areas of the state to be an ESA. Declared ESAs are listed in the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*. These include 'defined wetlands' and the area within 50 metres of the defined wetland (Figure 3), and threatened ecological communities listed by the Minister for Environment, which include many wetland areas. The location of ESAs can be viewed on the 'Native Vegetation Map Viewer' on the Department of Environment and Conservation website: <http://maps.dec.wa.gov.au/idelve/nv/index.jsp>



Figure 3. Lake McLeod, in the Shire of Carnarvon, is one of many wetlands in the state that are declared environmentally sensitive areas in accordance with the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*.

- The document, *A guide to the exemptions and regulations for clearing native vegetation under Part V of the Environmental Protection Act 1986*⁷, provides more details. It is available on DEC's website www.dec.wa.gov.au.

If an activity is not exempt under the clearing regulations or Schedule 6 of the EP Act then a person proposing to clear native vegetation must apply for a clearing permit.

DEC has primary responsibility for regulating the clearing of native vegetation in WA. Under section 20 of the EP Act, DEC has delegated certain provisions to the Department of Mines and Petroleum (DMP) for the administration, assessment and approval of clearing for mineral and petroleum activities.⁸ Applications for a clearing permit should be made to DEC, unless the application relates to mineral or petroleum activities, in which case the application should be made to DMP.

There are a number of clearing principles which the relevant department must have regard to when deciding whether to grant a clearing permit. These include the level of biological diversity in the area to be cleared, the importance of the vegetation to maintain a significant fauna habitat, and the impact of clearing on the quality of the surface or groundwater. The assessing department must also take into consideration planning and other matters including schemes and strategies, policies or plans adopted under a scheme, state planning policies and local planning strategies, and the department must ensure that the clearing permit is consistent with any approved planning instruments.

extra information

How wetlands are considered under the clearing principles

Under section 51O of the EP Act, the CEO must have regard to ten clearing principles when deciding to grant, or refuse, a permit. The CEO must also have regard to planning instruments (such as town planning schemes) and other relevant matters.

The ten principles, as specified in Schedule 5 of the EP Act, are listed below (with those especially relevant to wetlands in italics, although wetlands may also be relevant to each of the other principles):

- Native vegetation should not be cleared if it comprises a high level of biological diversity.
- Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.
- Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.
- Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.
- Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
- Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.*
- Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

How wetlands are considered under the clearing principles

(cont'd)

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

(i) *Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.*

(j) *Native vegetation should not be cleared the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.*

More information is available from *A guide to the assessment of applications to clear native vegetation under Part V of the Environmental Protection Act 1986*.⁷

The relevant department must also invite comment from any public authority or person which/who has, in the opinion of the CEO, a direct interest in the subject matter of the application and the department must advertise the application (Monday's *The West Australian* newspaper and on online via the Clearing Permits Reporting System; see below), inviting the general public to comment. The department must then take any comments into consideration before deciding to grant or refuse a permit. Conditions may be attached to a clearing permit for the purposes of preventing, controlling, abating or mitigating environmental harm or offsetting the loss of the cleared vegetation. For instance, conditions can include permit holders to establish and maintain vegetation on other land, enter into a conservation covenant or agreement to reserve, monitor operations, investigate options for measures to prevent, control or avoid environmental harm and implement and adhere to an environmental management system and plans.

If an application is refused, the department is required to give the applicant written notice. The applicant has the right to appeal the decision to refuse to grant a clearing permit and the decision to refuse to grant all the clearing applied for. Anyone may appeal the condition of the clearing permit. Anyone, except the applicant, may appeal the decision to grant a clearing permit. Appeals must be made within twenty-one days of the decision. Once an appeal is lodged with the Minister, the Appeals Convenor will consult with the department and the person who lodged the appeal. The Appeals Convenor may consult with any other person they think necessary and make a report to the Minister. The Minister makes a decision about the appeal. Once the Minister has made a decision, there is no further appeal allowed. In the incidence that a permit is subject to an appeal, the permit holder cannot undertake any clearing until the appeal has been resolved.⁶



Publicly available information on native vegetation clearing permit applications

Information on clearing permits is available to the general public:

- Notices of clearing applications and decisions are advertised in *The West Australian* newspaper and available on the DEC website.
- The Clearing Permits Reporting System on the DEC website (https://secure.dec.wa.gov.au/cps_reports/index.cfm) states whether clearing has been authorised, and if so, what conditions apply.

There are two types of clearing permits—area permits and purpose permits.

Area permits are those granted for clearing a defined area and can only be granted to the owner of the land or someone acting on the owner's behalf. This permit is transferable upon change of ownership on request from the new owner. Area permits are generally valid for a maximum of two years and are granted for activities such as the clearing of bushland to expand an agricultural activity and the removal of seagrass from coastal waters.

Purpose permits are granted for clearing in various areas from time to time for a specified purpose (such as a program of works) and when the applicant is not the owner of the land they wish to clear but has authority under a written law or permission to access the land to undertake clearing. Purpose permits are generally valid for a maximum of five years. These permits allow the holder to undertake a series of works or activities that involve the clearing of vegetation, over a period without having to apply for a separate area permit on each occasion. Purpose permits are granted for activities such as clearing to construct a new road or highway, where there are a number of different locations to be cleared and the project may take a long time to complete; or progressive clearing of an area for mining over an extended period of time.^{6,9}

The department assessing a clearing application must give precedence to decisions made by the Minister regarding related proposals. If a proposal is a component of an environmental impact assessment under Part IV of the Act, the department cannot grant or refuse an application to clear under Part V of the Act until the Minister for the Environment has made a decision on the proposal under Part IV of the EP Act. Only then can the department make a decision, which must be in accordance with the decision of the Minister.

Under the Act, a person who causes or allows clearing of native vegetation commits an offence unless that clearing is done in accordance with a clearing permit or is exempt. The holder of a clearing permit who contravenes conditions established on the permit also commits an offence under the EP Act. DEC's *Enforcement and Prosecution Policy 2008*¹⁰ outlines the principles that are followed in seeking compliance with the legislation.

Division 3 – Prescribed premises, works approvals and licenses

Division 3 establishes that it is an offence to carry out works which cause a premise to become a **prescribed premises** unless in accordance with a works approval.

Certain industries with a significant potential to pollute the environment are designated as prescribed premises under the EP Act and must hold a works approval (for construction) and a licence or registration (for operation).

DEC has responsibility under the EP Act for the licensing and registration of prescribed premises, licensing of controlled waste transporters, and administration of a range of regulations. DEC also monitors and audits compliance with works approvals, licence conditions and regulations, takes enforcement actions as appropriate, and develops and implements departmental licensing and industry regulation policy.

Division 4 – Notices, orders and directions

Division 4 of the Act provides the CEO of the relevant department with powers to issue an environmental protection notice to the owner and/or occupier of a premise if the CEO suspects that there is, or is likely to be, an emission from the premises that would not comply with a required standard or is likely to cause pollution, serious or material environmental harm.

Prescribed premises: premises prescribed for the purposes of Part V of the *Environmental Protection Act 1986* as specified in Schedule 1 of the *Environmental Protection Regulations 1987*

An environmental protection notice may require an investigation, the preparation of a plan to prevent, control or abate the emission/pollution/environmental harm; measures to prevent, control or abate the emission/pollution/environmental harm; limit waste, noise, odour or electromagnetic radiation; monitor and report associated offences.

An environmental protection notice binds each owner or occupier to whom it is given and each successive owner or occupier of the land to which the EP notice relates.

The CEO of the relevant department may extend the period within which a requirement contained in the notice is to be complied with or may revoke or amend any requirement contained in the notice or the notice itself.

A person who does not comply with a requirement contained in the notice commits an offence and may be convicted of that offence.

Part VI – Enforcement

Part VI of the Act provides for the appointment of inspectors for the purposes of monitoring, inspecting, evaluating and analysing samples, records, monitoring and other equipment and installations approved for detecting the presence, level and other characteristics of noise, odour, waste and electromagnetic radiation, and for inspecting native vegetation.

The powers of inspectors are prescribed in the Act, generally entitling inspectors to enter at any time (i) any premises used as a factory or in which an industry, trade or process is being carried on (ii) any site classified as contaminated under the *Contaminated Sites Act 2003* and (iii) premises which the inspector has reasonable grounds to believe that an offence against the Act has been or is likely to be committed.

Part VII – Appeals

Part VII prescribes the process of lodging an appeal in respect to the level of assessment set, reports on proposals and conditions or procedures attached to a decision made by the EPA. The right of decision-making authorities, responsible authorities, proponents or other persons to appeal any decision made by the EPA is prescribed here.

Part VII, section 101 prescribes the process of lodging an appeal against native vegetation clearing permit decisions made by DEC's CEO.

Part VIII – General

Part VIII of the Act prescribes other offences, administrative procedures, codes of practice and regulations, dispute resolution between the EPA and any public authority and for review of the EP Act and operations of the EPA.

Part VIII provides for the production and publication of administrative procedures for the purpose of establishing principles and practices for environmental impact assessment. Codes of practice may also be issued in relation to activities that involve an emission or environmental harm.

The *Wildlife Conservation Act 1950*

The *Wildlife Conservation Act 1950* provides for the conservation and protection of wildlife. DEC is responsible for administering this Act.

It specifically provides protection for native flora and fauna, making it an offence 'to take' protected flora or fauna unless a license authorised by the Minister for Environment is first obtained from DEC.

Under section 6(1) of the WC Act, 'fauna' is legally defined as any animal indigenous to or which periodically migrates to and lives in any State or Territory of the Commonwealth or the territorial waters of the Commonwealth. An animal includes all parts of the animals' body and includes eggs, larvae, semen, carcass, skin, plumage or fur.



Figure 4. 'Taking' of fauna, such as native turtles, is an offence unless a license authorised by the Minister for Environment is first obtained from DEC. Photo – A Matheson/DEC.

Threatened fauna: fauna that is rare or likely to become extinct and gazetted as such by the Minister for Environment

Red list criteria: developed by the International Union for the Conservation of Nature (IUCN) to allocate species of flora and fauna into threat categories of critically endangered, endangered and vulnerable, based on their likelihood of becoming extinct

Also under section 6(1) of the Act, 'to take' in relation to fauna includes to kill or capture any fauna by any means or to disturb or molest any fauna by any means or to use any method whatsoever to hunt or kill any fauna whether this results in killing or capturing any fauna or not; and also includes every attempt to take fauna and every act of assistance to another person to take fauna.

Section 14 of WC Act provides for the listing of fauna which is likely to become extinct, or is rare, or otherwise in need of special protection as 'specially protected fauna'. Those fauna listed as likely to become extinct, or is rare, are referred to as **threatened fauna**. A range of wetland fauna species are identified as threatened fauna.

► For information on specific threatened wetland fauna species, see the topic 'Wetland ecology' in Chapter 2.

Threatened fauna are listed by the Minister in Schedule 1 (extant species) and Schedule 2 (extinct species) of a Wildlife Conservation (Specially Protected Fauna) Notice in the Government Gazette. This Notice is usually published each year following recommendations to the Minister from the Threatened Species Scientific Committee and DEC. Assessment of threatened fauna is based on **Red list criteria** developed by the International Union for the Conservation of Nature (IUCN).

The Notice (Schedule 3) also includes migratory bird species protected under the international agreements: the Japan-Australia Migratory Bird Agreement (JAMBA); the China-Australia Migratory Bird Agreement (CAMBA); and the Republic of Korea-Australia Migratory Bird Agreement (ROKAMBA). Many of these bird species have specific relationship with wetlands.

Other specially protected fauna are included in the Notice in Schedule 4, and include fauna which have direct association with wetlands, for example, crocodile species and Burdekin duck (*Tadorna radjah*).

All fauna included on the Wildlife Conservation (Specially Protected Fauna) Notice, that is, in any Schedule to the Notice, have an increased penalty provision under the Act if not taken in accordance with the Act. The penalty is a fine of up to \$10,000.

The Minister (or DEC, under delegated power) may grant a licence to take fauna, including threatened fauna. There are a limited number of licence types that may be granted, such as licences for the taking of fauna causing damage to property, and licences to take and mark fauna for research purposes. People who carry out fauna surveys for scientific purposes are required to hold a Regulation 17 Licence to Take Fauna for Scientific Purposes. As a condition of the licence, the licensee is required to submit a return detailing the species and numbers that were captured or sighted.

Provisions are made under the Act to allow individuals to care for sick, injured or orphaned wildlife until such a time as it can be returned to the wild. A licence is not required unless the animal cannot be returned back to the wild through illness, disability or environmental issues. The decision then to grant a licence or send the animal to another facility or euthanase it will be made by DEC.

► For more information on fauna licensing, refer to the DEC fauna licensing webpage.¹¹

Under the Act 'flora' is legally defined as any plant which is native to Western Australia or which is published in the Government Gazette as flora for the purposes of the Act (including any wildflower, palm, shrub, tree, fern creeper or vine). A plant includes any part of flora and all seed and spores thereof.

'Protected flora' are those types of flora that are declared (in the Government Gazette) to be protected flora for the purposes of the Act, and hence to which the provisions of the Act apply. Classes of flora that are currently protected are the Spermatophyta (flowering plants, conifers and cycads), Pteridophyta (ferns and fern allies), Bryophyta (mosses and liverworts) and Thallophyta (algae, fungi and lichens).

Under Section 23F of the Act, where the Minister is of the opinion that any protected flora is likely to become extinct or is rare or otherwise in need of special protection, the Minister may declare that flora to be 'rare' throughout the State. Such specially protected flora is termed 'declared rare flora', or commonly referred to as **threatened flora**. Threatened flora are listed by the Minister in Schedule 1 (extant species) and Schedule 2 (extinct species) of a Wildlife Conservation (Rare Flora) Notice in the Government Gazette. As with the specially protected fauna, this Notice is usually published each year following recommendations to the Minister from the Threatened Species Scientific Committee and DEC. Assessment of threatened flora is based on Red list criteria developed by the International Union for the Conservation of Nature (IUCN).

► For information on specific threatened wetland flora species, see the topic 'Wetland vegetation and flora' in Chapter 2.

'To take' as referred to in section 6(1) of the Act in relation to flora includes to gather, pluck, cut, pull up, destroy, dig up, remove or injure the flora. Therefore taking of flora includes everything from direct impact by removal or destruction by human hand or machine to indirect activities such as grazing livestock on flora, introducing pathogens that attack it, altering soil moisture, inundation of the flora or allowing air pollutants such as pesticides to harm foliage etc (K Atkins pers. comm.).

In general, the Act regulates the taking of part or all of a WA native plant (protected flora) through the issuing of licences. DEC does not issue such licences where the taking of the flora has been authorised through another legislative process. In this regard, the clearing of native vegetation is regulated under the *Environmental Protection Act 1986* and requires a clearing permit to be obtained from DEC unless exempt. Where a clearing permit has been issued, the further issue of a Wildlife Conservation Act licence is not required by DEC. For more information please refer to the information on Part V of the *Environmental Protection Act 1986* in this topic.

Threatened flora: flora that has been assessed as being at risk of extinction or is rare or otherwise in need of special protection and gazetted as such by the Minister for Environment. These species are commonly referred to as declared rare flora

Under Section 23C, people who wish 'to take' flora on lands other than on private property (i.e. Crown land) for scientific study, education, hobby, propagation, or other non-commercial purposes must hold a Scientific or Other Prescribed Purposes Licence obtainable from DEC for a small annual fee. This licence does not entitle the holder to sell any of the flora taken, or use it for any commercial purpose.

If the flora is being taken from Crown land for commercial uses, including for sale, a commercial purposes licence is required. Before it can be issued, the applicant must demonstrate that they have an area on which they can harvest flora. This will include the written permission of any government agency that is managing the land. There is an annual fee for a commercial purpose licence.

Special restrictions apply to the taking of flora from nature reserves, national parks or conservation parks, and such reserves are normally excluded to commercial pickers.

Under Section 23D, no Wildlife Conservation Act licence is required for taking flora from private property, but the permission of the land owner must first be obtained. However, a licence is required to cover the sale of any protected flora taken from the property. This includes the sale of seed that has been collected for revegetation use.

Rare (threatened) flora are provided with additional (special) protection under Section 23F(4) of the Act, whereby the written consent of the Minister must first be obtained before such flora can be taken, irrespective of whether a licence to take protected flora or the permission of the land owner has been granted, or a clearing permit issued. This requirement applies to any person on any land (Crown and private) throughout the state. The penalty for taking rare flora without obtaining the consent of the Minister is a fine of up to \$10,000.

Species may also be listed as nationally threatened under the national *Environment Protection and Biodiversity Conservation Act 1999*. See the listing under *Environment Protection and Biodiversity Conservation Act 1999* for more detail.

The Western Australian Government has made a commitment to the repeal and replacement of the *Wildlife Conservation Act 1950* with a Biodiversity Conservation Act that will include the elements expected in a modern biodiversity conservation legislation.

- For more information on flora licenses and permits see the DEC flora licensing webpage.¹²

Threatened ecological community: naturally occurring biological assemblages that occur in a particular type of habitat that has been endorsed by the WA Minister for Environment as being subject to processes that threaten to destroy or significantly modify it across much of its range

extra information

Threatened ecological communities

The three main elements of biodiversity are genetic diversity, species diversity and ecosystem diversity. Modern biodiversity conservation strategies are aimed at conserving all these elements. Threatened biodiversity conservation strategies were traditionally aimed at species, however, species conservation now includes consideration of genetic diversity, and the interaction of species is accounted through ecological community conservation.

Ecological communities are defined as naturally occurring biological assemblages that occur in a particular type of habitat. They are the sum of species within an ecosystem and, as a whole, they provide many of the processes which support specific ecosystems and provide 'ecological services'. Those ecological communities that are determined to be at risk of being totally destroyed or significantly modified across much of their range are termed **threatened ecological communities** (TECs).

Threatened ecological communities (cont'd)

There is currently no state legislation specifically covering the listing of TECs. Instead, an informal, non-statutory process is in place, with formal endorsement of TECs being provided by the Minister. Recommendation on TECs are made to the Minister by the Western Australian Threatened Ecological Communities Scientific Committee (TECSC). This committee is appointed by the Minister for Environment, with administrative support provided by DEC. Anyone can submit a nomination for listing or amending the listing of a TEC to the TECSC. Currently there are sixty-nine TECs endorsed by the WA Minister for Environment. Of these, thirty-seven are wetland communities (see Appendix 3 for more information).

TECs receive a level of protection through reference in environmental and planning policies, and environmental impact assessment under the *Environmental Protection Act 1986*. TECs are listed as special environmental areas in the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*, and are one of the clearing principles under Part V of the EP Act, and consequently receive specific consideration under the Environmental Protection (Clearing of Native Vegetation) Regulations 2004.

Ecological communities may also be listed as nationally threatened under the national *Environment Protection and Biodiversity Conservation Act 1999*. See the listing under *Environment Protection and Biodiversity Conservation Act 1999* for more detail.

For more information, see 'WA's threatened ecological communities' webpage: www.dec.wa.gov.au/management-and-protection/threatened-species.html and DSEWCaP's 'Threatened species and ecological communities' webpage: www.environment.gov.au/biodiversity/threatened/index.html

The *Conservation and Land Management Act 1984*

The *Conservation and Land Management Act 1984* provides for the use, protection and management of certain public lands and waters and the flora and fauna in them, and for establishment of authorities responsible for these lands.

The Act relates to state forest, timber reserves, national parks, conservation parks, nature reserves, marine nature reserves, marine parks, marine management areas and other land reserved by the Minister for Lands under the *Land Administration Act 1997*.

Many of the state's high conservation value wetlands are within these areas. For example, approximately 60 percent (56,977 hectares) of the nationally important wetlands within the south west agricultural zone area are managed by DEC as part of the conservation estate.¹³

The Act also establishes a number of statutory bodies to facilitate the protection and management of public lands, including DEC and the Conservation Commission of Western Australia. Terrestrial conservation reserves in WA are vested in (owned by) the Conservation Commission of Western Australia.¹⁴

- More information about the role of the Conservation Commission is provided in the topic 'Roles and responsibilities' in Chapter 5.

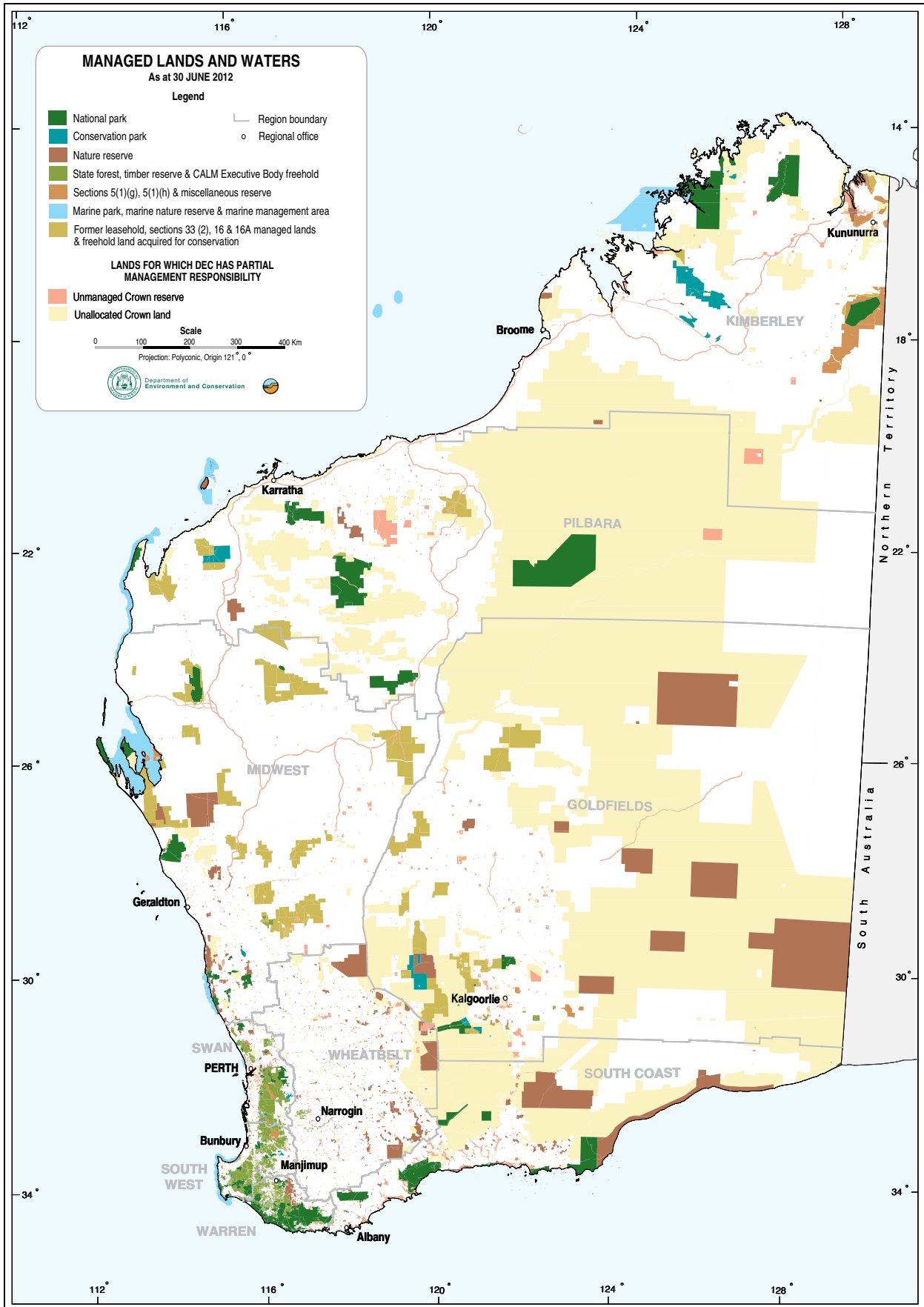


Figure 5. DEC managed lands and waters at 30 June 2012.

Where an **endorsed management plan** exists for a national park, conservation park or nature reserve, DEC must manage the reserve in accordance with the plan. If there is no management plan for a reserve, DEC must undertake only 'necessary operations' or 'compatible operations'. DEC's management of conservation land is subject to performance review by the Conservation Commission.

The Act specifies offences and the penalties and prosecution powers available to the relevant authority under the Act.

The operation of the CALM Act cannot derogate (override) the operation of the *Mining Act 1978*, *Petroleum Act 1967* (or any other Act relating to minerals or petroleum). However in relation to mining on 'reserved land' (a sub-category of crown land that includes all land formally managed under the CALM Act) the Minister for Mines must (according to the class and category of reserve) obtain either the agreement or recommendations of the Minister responsible for the reserve regarding whether and under what conditions mining or exploration activities may proceed. In relation to CALM Act lands, this Minister is the Minister for Environment.

In relation to the Petroleum Act, the Minister responsible for the reserve is required to be consulted by the Minister responsible for the Petroleum Act before the tenement holder may access the reserved land to carry out activities or operations authorised under the Act.

Under the Mining Act or Petroleum Act the Minister for Mines may grant tenements without consulting the responsible Minister, however, under the Mining Act the convention is normally to consult the responsible Minister before grant of tenure over reserved lands. Exceptions are the grant of a mining lease over national park or class A nature reserve, which requires support of both Houses of Parliament.

extra information

Regional parks

Regional parks are a land management system that provides the opportunity for a coordinated planning and management approach by a number of management agencies and private landowners for areas identified as having regionally significant conservation, landscape and recreation values.

These parks are not afforded special legal status, but are rather a recognition of geographically related areas that have a common management focus. DEC coordinates management but they are not reserved under the *Conservation and Land Management Act 1984*, and hence DEC does not have management responsibility for these areas. They comprise a range of land tenures vested in a range of managing authorities.¹⁴

Many significant wetlands are within Perth's regional parks, including the Rockingham Lakes Regional Park, Herdsman Lake Regional Park, Yellagonga Regional Park, Jandakot Regional Park and Beeliar Regional Park.

Endorsed management plan: a management plan that has been approved and/or modified by the Minister for Environment as he/she thinks fit

The *Planning and Development Act 2005*

The *Planning and Development Act 2005* (PD Act) is the principal land use planning legislation in WA, providing for efficient land use planning in the State. It is administered by the Western Australian Planning Commission (WAPC), with the authority for some decisions delegated to the Department of Planning.

Land use planning is carried out at state, regional and local scales. Figure 6 shows how state, regional and local planning processes interact.

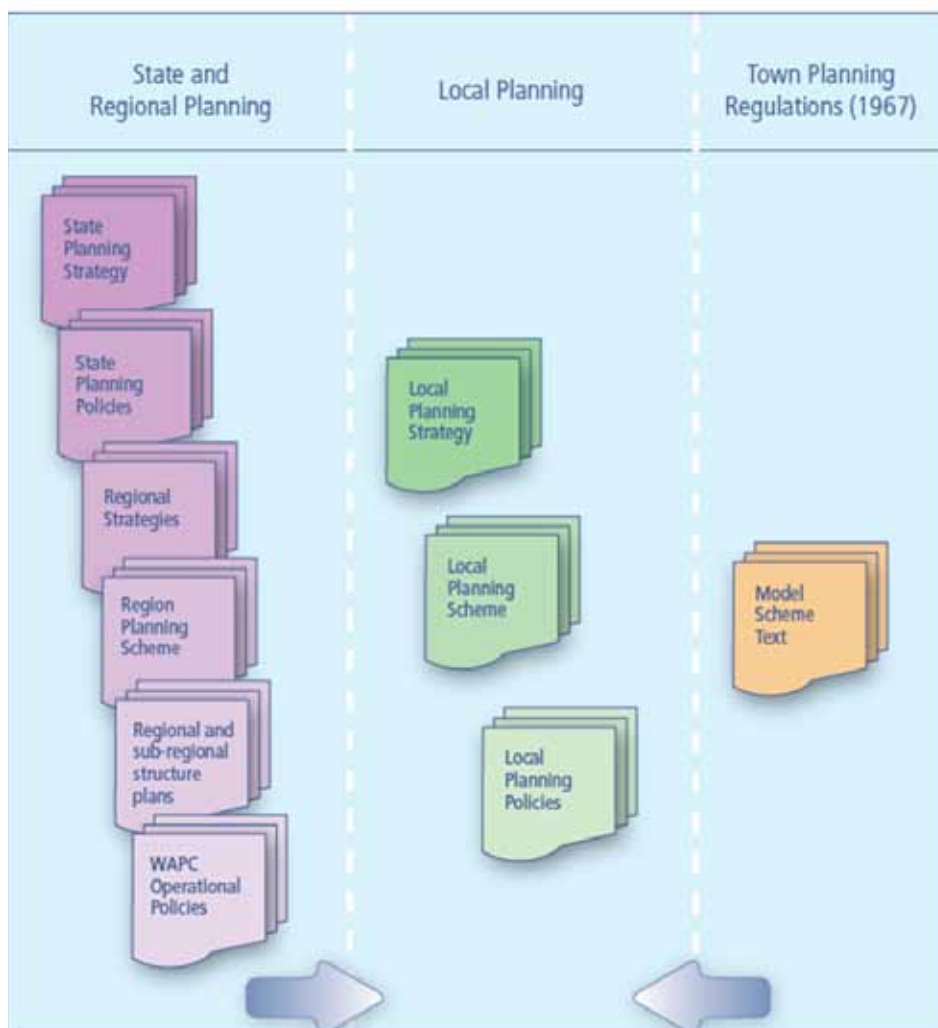


Figure 6. State, regional and local planning instruments. Image – Western Australian Planning Commission.¹⁵

Land use planning plays a decisive role in the protection afforded to wetlands, particularly in urban areas. It can determine whether a wetland is protected or if it may be developed over or altered into an artificial system. It can also determine what activities can occur in the catchment that will ultimately have a significant effect on the long-term integrity of wetland ecosystems. Therefore, the *Planning and Development Act 2005* is critical to wetland protection in WA.

This Act primarily replaces three repealed planning Acts: the *Western Australian Planning Commission Act 1985*; *Metropolitan Region Town Planning Scheme Act 1959*; and the *Town Planning and Development Act 1928*. These Acts were amalgamated to simplify planning legislation, make it more accessible to users, provide greater consistency and certainty in planning decision making and promote the sustainable use and development of land.¹⁶

The PD Act prescribes key planning processes including:

- Part 3 - state planning (policies, structure planning and planning strategies and bulletins)
- Part 4 - region schemes
- Part 5 - local planning schemes
- Part 8 - improvement plans
- Part 9 - subdivision and development
- Part 13 - enforcement and legal proceedings
- Part 14 – applications for review.

An overview of the application of these planning processes in the context of wetland protection is provided below.

State planning policies

Part 3 of the PD Act provides for the preparation of policies on state planning matters by the Western Australian Planning Commission. These are called state planning policies (SPPs) and are statutory policies prepared under the Act, approved by the Minister for Planning and the Governor and published in the Government Gazette.

These policies are concerned with broad general planning and facilitate the coordination of planning throughout the state by all local governments. SPPs can be made for matters which may be the subject of a local planning scheme or which relate to a specific region or area of the state. Examples include statewide policies for coastal planning and rural land use planning, and specific regional policies for the protection of bushland, the Peel-Harvey coastal plain catchment and Gnangara and Jandakot groundwater mounds.

The WAPC prepares SPPs in consultation with Western Australian Local Government Association. The WAPC and local governments must have 'due regard' to the provisions of state planning policies when preparing or amending local planning schemes. The State Administrative Tribunal is also required to have due regard for relevant state planning policies when determining applications for review.

The consultative requirements for development of SPPs facilitate input from community, local government, and agencies into these policies. Copies of SPPs must be made publicly available and a notice published in a daily and Sunday newspaper stating the purpose of the SPP and detailing a submission period of sixty days or more within which submissions can be made.¹⁶

- A number of state planning policies have a significant bearing on wetland conservation and protection in WA. These include:
 - *State Planning Policy 2: Environment and Natural Resources*
 - *State Planning Policy 2.1: Peel-Harvey Coastal Plain Catchment*
 - *State Planning Policy 2.2: Gnangara Groundwater Protection*
 - *State Planning Policy 2.3: Jandakot Groundwater Protection*
 - *State Planning Policy 2.8: Bushland Policy for the Perth Metropolitan Region*
 - *State Planning Policy 2.9: Water Resources*

These policies are described in this topic in the section 'Policies for wetland conservation'.

Region planning schemes

Part 4 of the PD Act provides for the continuation and preparation of **region planning schemes**. These 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** (Figure 7) and other community purposes. Examples include the Metropolitan Regional Scheme, Greater Bunbury Regional Scheme and Peel Regional Scheme. The Greater Bunbury Regional Scheme and Peel Regional Scheme are subsidiary legislation made under the PD Act.

A region planning scheme usually covers more than one local government area. The content of the scheme may vary for each region, but generally regional schemes establish broad land use **zones** or policy areas and identify land required for regional purposes. Regional schemes generally outline the broad framework within which local planning schemes are developed under.



Figure 7. Lightning Swamp in Noranda, a suburb in Perth, has been reserved under the Metropolitan Region Scheme. Photo – J Lawn.

For areas not covered by a region planning scheme, the classification of scheme reserves and zones is generally made through local planning schemes.¹⁶

The PD Act states that during the preparation or amendment of a region planning scheme, the scheme must be referred to the EPA for consideration of the need for an environmental assessment. Other relevant regulators and/or interested groups may also be invited to comment. The EPA may issue an instruction to the responsible authority to undertake an environmental review, which must be completed before the scheme is advertised during the public exhibition period of the scheme.¹⁶

Region planning scheme (region scheme): a planning scheme prepared for matters of state or regional importance to enable effective planning and coordination of land use and development. Also known as a region scheme.¹⁶

Regional open space: land defined under a region scheme, regional structure plan or sub-regional structure plan as a parks and recreation reserve or regional open space reserve, to accommodate active and passive recreation such as major playing fields and/or regional conservation and environmental features¹⁷

Zone: designates uses within a specified area of land as being permitted, prohibited or requiring approval

The Metropolitan Region Scheme – Perth’s blueprint

The Metropolitan Region Scheme (MRS) is a region planning scheme for land use in the Perth metropolitan area. It has been in operation since 1963 and provides the basis for planning in the Perth metropolitan region. The scheme is amended as necessary.

The area covered by the MRS stretches from south of Rockingham to north of Yanchep and east of Mundaring.

The principle functions of the MRS are to:

- reserve land required for public purposes and acquire it as necessary
- identify non-reserved land and classify it into zones such as urban, industrial or rural
- control development on reserved and zoned land, particularly by issuing decisions on development applications.

More detailed plans, known as ‘local planning schemes’ are prepared by local governments. Local planning schemes must be consistent with the MRS. Where there is an inconsistency the MRS prevails and the local planning scheme is to be amended.

The MRS consists of a set of maps and a scheme text. The scheme text provides planning rules for zones and reservations that are shown on the maps in different colours and patterns. The scheme maps and text are updated to reflect changing needs.¹⁶

It, and the other region schemes, is available to view online at www.planning.wa.gov.au including in GIS format at https://www.landgate.wa.gov.au/foundationr2/enter_planning_channel.do

Local planning scheme: a set of provisions that identifies the way land in the scheme area is to be used and developed. It may comprise a scheme map(s), a text and an explanatory report¹⁶

The Minister can consent to public submissions being sought on the proposed region planning and any environmental submissions made during the public exhibition time must addressed by the EPA. The Minister may then approve or refuse the scheme and may impose environmental conditions into the scheme.

Local planning schemes

Part 5 of the PD Act provides for the development of **local planning schemes**. They are developed and administered by local government authorities and have the force of law following approval by the Minister for Planning and publication in the Government Gazette. The Town Planning Regulations 1967 prescribe the procedures for initiating, preparing, advertising and approving local (town) planning schemes and their amendments.

Local planning schemes set out the way land is to be used and developed. This is done by dividing land in the scheme area into zones and reserves. This classifies areas for land use and includes provisions to coordinate infrastructure and development in a locality. This usually includes a zoning or land use class table and controls to ensure long-term strategic planning objectives are achieved.

Local planning schemes complement the provisions of a region planning scheme by detailing land uses. For example, region planning schemes have a broad urban zone. In the urban zone the local planning scheme may detail residential density, identify commercial sites, local open space, primary school sites, light and service industrial areas and other uses.¹⁶

Local planning schemes are an important mechanism for wetland protection. Schedule 7 of the Act specifically provides for the conservation of the natural environment and the conservation of water to be dealt with by planning schemes. Wetlands can be protected in various ways including reservation, appropriate zoning, and special control areas. Wetlands and buffers may be **reserved** for public purposes as **public open space** for the purpose of conservation. Reserves may be purchased by government or ceded to government, but cannot be developed without approval. The Act provides that an affected owner can claim for compensation for land that is reserved under certain circumstances. The local government can also buy the land instead of paying compensation.

- More information on public open space can be found in Development control policy 2.3: Public open space in residential areas.¹⁸

Controls on development in and near wetlands may also potentially be achieved by the use of special control areas (SCAs). SCAs apply planning controls to clearly defined areas within local planning schemes, and can be used to designate controls on development on and near wetlands. These clearly defined areas may be shown as overlays to the zoning map or on a separate scheme map or maps. The SCAs provide planning controls for a variety of purposes; those most relevant to wetlands include SCAs for the purposes of:

- landscape protection
- establishment of buffers and setbacks
- protection of water catchments
- development controls in flood-prone land
- development controls in bush fire prone areas.

The provision of a SCA include its purpose, and where necessary, specific development requirements and/or performance criteria to be applied to development within SCAs.

SCAs have, for example, been applied to wetlands of conservation significance within local planning schemes in WA, and detailed the development requirements in relation to these sites.

- For more information, refer to section 3.5.7 of the *Local Planning Manual: a guide to the preparation of local planning strategies and local planning schemes in Western Australia*.¹⁵

For a local planning scheme or scheme amendment to be considered for approval it must be submitted to the WAPC and EPA for consideration of the need for an environmental assessment (as outlined in Division 3 of Part IV of the *Environmental Protection Act 1986*). If an environmental assessment is required, the EPA issues an instruction and the local government must undertake an environmental review.

- For more information, see the section in this document entitled '*Environmental Protection Act 1986*'.

Section 88 of the Act specifies that local governments are to consolidate their planning scheme or prepare a new scheme every five years. This enables the Minister, WAPC and the community an opportunity to comment on the development of a locality.

Reserved: set aside for public purposes

Public open space: land used or intended for use for recreation or conservation purposes by the public; it includes district, neighbourhood and local open spaces and parks, but excludes regional open space or foreshore reserves^{15,17}

Structure planning – also referred to as outline development plans and subdivision guide plans

Some aspects of land use planning are dealt with by operational policy rather than specific provisions in the TP Act. Structure planning is one such planning mechanism.

Structure planning can be a particularly crucial phase for wetland protection. Structure plans are sometimes also known as *outline development plans* and *subdivision guide plans*. Structure plans incorporate a report, map and additional technical supporting documents. They provide a framework for the coordinated provision and arrangement of land use, subdivision and development in new urban areas ('greenfield' sites) and the redevelopment of areas ('brownfield' sites). They coordinate many aspects of land use including transport networks, public open space, utility services, urban water management and environmental protection and management (as shown in the Stirling City Centre Structure Plan map in Figure 8).

There are several different types of structure plans that are relevant to wetland protection:

- sub-regional structure plans
- district structure plans
- local structure plans

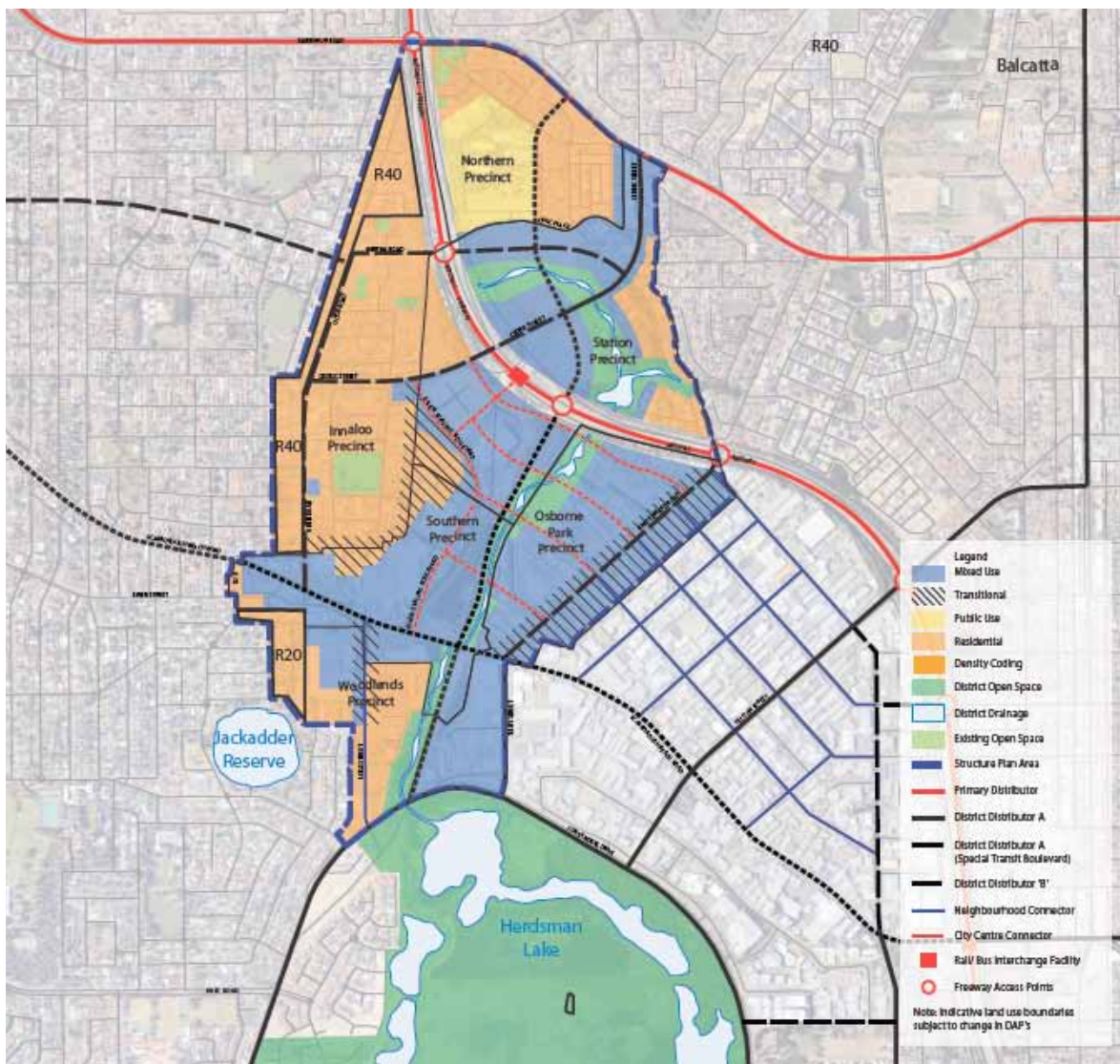


Figure 8. Stirling City Centre Structure Plan. Image – Stirling City Centre Alliance, www.stirlingcitycentre.com.au

Structure planning – also referred to as outline development plans and subdivision guide plans (cont'd)

WAPC's *Structure plan preparation guidelines*¹⁷ states that structure plans should identify:

- the wetlands present in the structure plan area, including an aerial photo showing their location and extent
- their significance
- existing and proposed conservation areas
- the tenure of the land containing wetlands
- buffers
- a structure plan overlay showing the proposed structure plan over the wetland and buffer
- an environmental assessment and management strategy for the structure plan area, including wetlands, by a qualified environmental consultant
- discuss how the wetlands have been addressed by the structure plan, including any relevant environmental studies, analyses and management measures
- discuss how identified or potential water issues are to be addressed and management, including the requirements for sustainable water supply and existing/new bore licences
- provision of open space for significant conservation and water management functions
- management arrangements and responsibilities for the proposed open spaces
- water management strategy in accordance with *Better Urban Water Management*⁹
- the proposed drainage network and infrastructure
- mosquito constraints

Structure plans can be statutory or non-statutory. Non-statutory structure plans include sub-regional and most district structure plans. These are prepared for land that is either not yet zoned for urban land use or requires a guiding framework to ensure coordination of subsequent layers of more detailed planning and development is achieved.¹⁷ They often cover more than one local government area. District structure plans include a map and text. Wetlands and buffers can be identified as sites to be protected in a district structure plan. Water management requirements to protect the water regime of a wetland can also be addressed through the district structure plan.

Statutory structure plans are required and prepared in accordance with the provisions of a local planning scheme. They are statutory once endorsed by the WAPC. These are usually local structure plans and activity centre structure plans (which are at the neighbourhood scale, that is two suburbs or less, and activity centre scale respectively). Local structure plans are a bridge between the local planning scheme and the subdivision stage of land use planning. New regulations, the Planning and Development (General Provisions for Local Planning Schemes) Regulations, have been proposed to provide a uniform statutory process for the approval and modification of structure plans.¹⁷

The WAPC states that consultation with stakeholders is essential when preparing a structure plan.¹⁷

Subdivision and development control

Subdivision and development of land occurs once land has been appropriately zoned in a region planning scheme or local planning scheme and any required preliminary planning, for example a structure planning process, has been finalised.

Part 10 of the Act requires the approval of the WAPC for the **subdivisions** or amalgamation of lots. The WAPC is not to give approval that is inconsistent with the local planning scheme, unless provided for in circumstances outlined under section 138 of the PD Act.

Subdivision proposals are referred for comment to local government, relevant public authorities (such as DEC and Department of Health) and utility service providers (such as Water Corporation, Telstra, Western Power and Alinta Gas). Referral bodies have forty-two days to respond to the WAPC (unless otherwise agreed), after which it will be deemed that the referral body has no objection or recommendation. The WAPC may consider some referral agencies' advice to be critical to the assessment of an application, and on that basis can provide referral agencies with additional time to provide a recommendation.¹⁶

Following review of comments, a report and recommendation is made to the WAPC who will then consider the application in respect to any region or local planning scheme, together with any relevant planning policies. The WAPC has ninety days from the date the plans are submitted to approve or refuse the application with or without imposing conditions. If an applicant is not satisfied with the WAPC's decision, they can request WAPC to reconsider their decision or can apply to the State Administrative Tribunal for a review.

Conditions of subdivision may be applied for many purposes, including the conservation or protection of wetlands. Conditions of subdivision are applied by the WAPC and the applicant is responsible for complying with their requirements. If the WAPC is satisfied that conditions have been complied with, it is to endorse the diagram or plan of survey that enables the Registrar of Titles to issue certificate of titles for the new lots.

Proponents who propose to subdivide an area which encompasses a wetland are often required, as a condition of subdivision, to prepare and implement a wetland management plan. The standard condition is: 'Prior to the commencement of subdivisional works a wetland management plan is to be prepared and approved to ensure the protection and management of the site's environmental assets with satisfactory arrangements being made for the implementation of the approved plan'.²⁰ DEC or the local government authority is commonly the clearing agency for this condition. Urban water management plans are generally also required in urban areas where water issues are of concern, such as when significant wetlands are in or near the subdivision. The standard condition applied is: 'Prior to the commencement of subdivisional works, an urban water management plan is to be prepared and approved, in consultation with the Department of Water, consistent with any approved Local Water Management Strategy/Drainage and Water Management Plan'.²⁰ Local government is commonly the clearing authority for this condition.

- The *Model Subdivision Conditions Schedule*²⁰ provides the wording of commonly applied subdivision conditions. It is available at www.planning.wa.gov.au/dop_public/Model_Subdivision_Conditions_3_October_2012.pdf

Most types of development approvals are delegated by WAPC to the local government authority to administer through their local planning schemes. Where the WAPC considers types of development may have regional significance, it has the power to retain or regain development control.

Subdivision: the division of land into lots

Enforcement

The enforcement of local planning schemes and conditions of planning approvals are the responsibility of the local government. The Minister for Planning may give orders to local government or may utilise powers in order to enforce the local planning scheme and approvals. The contravention of a planning scheme or undertaking unauthorised works is deemed an offence and so the person committing the offence may be liable to a penalty.

If a development contravenes a planning scheme or approval, the responsible authority can direct the landowner or person undertaking the development to stop and rectify the contravention even if this involves measures such as removing or pulling down structures and restoring the land. The responsible authority may also apply to the Supreme Court to grant an injunction to restrain a person from continuing to contravene a planning scheme or approval.

Infringement notices can be issued under the *Planning and Development Act 2005*. These notices deal with minor offences where a contravention is clear and apparent. For example: the unlawful use of buildings or illegal parking of commercial vehicles in residential areas.

To ensure environmental conditions are met in the implementation of a development, the Minister for Planning may also issue a written order to the person undertaking development to immediately cease for 24 hours and cause the responsible authority to serve a notice and take necessary steps to rectify any non-compliance with conditions.

► The following resources provide more information on the *Planning and Development Act 2005*:

- *An introduction to the Western Australian Planning System*¹⁶
- *Fact sheet 3: Planning laws*²¹
- *Fact sheet 4: Development controls*²²

The Rights in Water and Irrigation Act 1914

The *Rights in Water and Irrigation Act 1914* (RIWI Act) provides for the regulation, management, use and protection of water resources. It is the principal legislation governing the allocation and management of water resources for consumptive use. Under the Act, the taking and use of that water without appropriate authorisation (such as a water allocation licence) is prohibited. It is administered by the Department of Water.

The objectives of the Act are to:

- provide for the sustainable use and development of water resources and for the protection of the environment
- promote the orderly, equitable and efficient use of water resources
- foster consultation with members of local communities and to enable them to participate in administration
- assist the interaction of the management of water resources with the management of other natural resources.

A 5C licence allows the licence holder to 'take' water from a watercourse, wetland or underground source. Under the provisions of section 5C of the RIWI Act, unless a person holds a licence, any unauthorised taking of water is prohibited except where a person has another right to do so or is exempt from licensing. The stock, domestic and riparian rights allow water to be taken without a licence in some circumstances, although this is generally limited to taking it for domestic purposes, fire fighting and for watering stock not held under intensive conditions.



Figure 9. Groundwater abstraction is licensed by the Department of Water under the *Rights in Water and Irrigation Act 1914*. Image – Department of Water.

A 26D licence is issued under the provisions of 26D of the Act to construct or alter wells. A 25D licence is required to commence, construct, enlarge, deepen or alter any artesian well or commence, construct, enlarge, deepen or alter any non-artesian well in a proclaimed groundwater area.

The Department may grant or refuse licenses based on whether the application is in the public interest, ecologically sustainable and environmentally acceptable.

The impacts of accessing the state's water resources are managed by placing appropriate terms and conditions in licences to take and use water, granted under section 5C and 26D of the RIWI Act.

extra information

RIWI Act licences: a critically important mechanism for wetland protection

There are more than 14,000 RIWI Act licences in WA.²³ To find out more about the water allocation planning process, see the following resources:

- *Water allocation planning in Western Australia 2011*²⁴ provides a summary of the policy and planning framework for these licensing decisions
- *Groundwater risk-based allocation planning process*²⁵ provides information on how ecological water requirements for groundwater dependent ecosystems are taken into consideration in the allocation planning process.
- Department of Water's webpage: www.water.wa.gov.au/allocationplanning

The Act also provides for the protection of water resources (and associated wetland/ riparian land) by requiring permits for activities that interfere with the beds and banks in proclaimed rivers, surface water management areas and irrigation districts (Sections 17, 11 and 21A). Outside proclaimed areas, the powers extend to interferences for taking water from Crown-owned watercourses or wetlands with public access (Sections 11 and 21A).

The Department of Water may grant or refuse permits based on whether the application is in the public interest, ecologically sustainable, environmentally acceptable and consistent with land use planning instruments and other agency policies (Clause 7(2) of Schedule 1 and Regulation 7 Part 2 of the *Rights in Water and Irrigation Regulations 2000*).

Conditions can be made in relation to the use, management, protection and enhancement of any water resource and its ecosystem, including the wider environment around the water resource (Appendix to Schedule 1).

Obstructing or destroying watercourses is an offence (Sections 18 and 25). Under section 5E a “person taking or using water from a water resource” is required to “take all reasonable steps to minimise the degradation of the resource”. Degradation is defined in this Act as “the sensible diminishing of the quality or quantity of water” (Section 2(1)).

A direction is a written notice given under the provisions of the Act. The department (on behalf of the Minister for Water) has the power to issue a direction to any person in any part of the state, irrespective of whether they hold a licence or permit.

The *Soil and Land Conservation Act 1945*

The *Soil and Land Conservation Act 1945* (SLC Act) controls land degradation, including the drainage of saline land and applies to all agricultural and pastoral land in WA. The SLC Act is administered for the Minister for Agriculture by the Commissioner of Soil and Land Conservation through the Office of the Commissioner.

The management of drainage of saline land is a critical wetland management issue in agricultural areas affected by salinity. The use of downstream wetlands as ‘sacrificial’ wetlands that receive saline drainage from agricultural land can significantly degrade these wetlands, even those that are naturally saline.



Figure 10. Drainage of saline land is subject to the *Soil and Land Conservation Act 1945*.

The penalty is \$2,000 for individuals and up to \$10,000 for companies. Furthermore approvals often apply under other legislation. For example, drainage may involve approvals to develop, clear, take groundwater and undertake earthworks on the bed or banks of watercourses. Unauthorised actions may cause environmental harm under the *Environmental Protection Act 1986*.

A soil conservation notice (SCN) may be applied where land degradation has occurred, or is likely to occur, on a pastoral or agricultural land. ‘Land degradation’ includes salinity, erosion, flooding and the removal or deterioration of natural or introduced vegetation.

- Although drainage and groundwater pumping for salinity control are regulated under the SLC Act, the Act does not clearly define the roles of all the participants

The Soil and Land Conservation Regulations 1992 were introduced to control the drainage of saline land in WA. Regulation 5 requires landholders (owner or occupier) intending to drain or pump water from under the land surface to notify the Commissioner of Soil and Land Conservation at least 90 days before work commences. This includes draining or pumping within the same property.

The aim of the notification is to allow for an assessment of the proposed works to be carried out and to ensure that neighbouring landholders and affected public authorities are given the opportunity to comment on the proposal.

Regulation 6 states that within the Peel-Harvey catchment area, a notice of intention is required for any draining or pumping works.

It is an offence not to give notice of intent to drain when required to do so.

of these schemes. The *Policy framework for inland drainage*²⁶ defines the roles and responsibilities of drainage practitioners and other stakeholders including regulators. It also provides the principles for assessing drainage proposals.

- ▶ A publication series entitled 'Conservation practices for agricultural land' outlines best management practice standards for graded banks, grassed waterways, leveed deep drains, open deep drains and shallow relief drains. See www.agric.wa.gov.au/PC_93235.html?s=1532050204.

The Land Administration Act 1997

The *Land Administration Act 1997* (LA Act) is the key Act governing the use of pastoral leases. It is administered by the Pastoral Lands Board (through the Department of Regional Development and Lands) and applies to pastoral lessees, and has implications for wetland management on pastoral lands.

It requires that:

- pastoral lessees must use methods of best pastoral and environmental management practice
- land is not to be used for any other purpose other than pastoral except in accordance with the permit
- the lessee must maintain the indigenous pasture and other vegetation on the land
- non-indigenous pasture cannot be sown on a lease without a permit
- permits to clear or develop pastoral land cannot be approved unless the requirements under other legislation, including the Wildlife Conservation Act 1950 and Soil and Land Conservation Act 1945, have been complied with.¹



Figure 11. Pastoral areas of the state encompass many wetlands of conservation significance. The *Land Administration Act 1997* requires pastoral lessees to use methods of best pastoral and environmental management practice. Photo – L Bayley/Department of Agriculture and Food.

The *Aboriginal Heritage Act 1972*

The *Aboriginal Heritage Act 1972* (AH Act) provides for the protection of Aboriginal cultural heritage. The AH Act provides protection for all places and objects of importance to Aboriginal people in WA because of connections to Aboriginal culture. These places are referred to as 'Aboriginal sites of significance'. Many of these sites are wetlands or are near wetlands.



Figure 12. Many wetlands are designated 'Aboriginal sites of significance' under the *Aboriginal Heritage Act 1972*. This mosaic was prepared as a collaborative art project by students of Newton Moore Senior High School and the Bunbury Learning Centre in recognition of the importance of the Big Swamp environment, Bunbury. Photo – J Lawn/DEC.

The Act provides for the establishment (section 28) and operation (section 39) of the Aboriginal Cultural Material Committee, to evaluate the importance of places and objects and record and preserve information relating to them and advise the Minister of Indigenous Affairs and trustees.

In accordance with Section 18 of the Act, the Department of Indigenous Affairs (DIA) maintains a Register of Aboriginal Sites as a record of places and objects of significance to which the Act applies. Information on the register that is not culturally sensitive is available to the public. It is the duty of anyone who becomes aware of an Aboriginal site to report it to DIA. The presence of an Aboriginal site places restrictions on what can be done to the land. Anyone who wants to use land for research, development or any other cause, must investigate whether there is an Aboriginal site of significance on the land.

Under the Act it is an offence for anyone to excavate, damage, destroy, conceal or in any way alter an Aboriginal site without the Minister's permission. The AH Act protects all Aboriginal sites whether or not they are recorded on the Register of Aboriginal Sites or otherwise known to the Registrar of Aboriginal Sites, DIA or the Aboriginal Cultural Material Committee. The register operates primarily as a form of notice that places may be of Aboriginal site of significance, and indicate that a place has been assessed by the ACMC and has met the criteria for definition as an Aboriginal site, and hence the provisions of the Act will apply.

- For more information, see the Department of Indigenous Affairs website: www.dia.wa.gov.au

The Fish Resources Management Act 1994

The *Fish Resources Management Act 1994* (the FRM Act) regulates the management, utilisation and conservation of fish (which includes all aquatic organisms except reptiles, birds, mammals and amphibians) and their habitat. This includes all waters of the state and therefore includes its inland wetlands, estuaries and waterways. The Act also prohibits any person from engaging in any activity if it causes pollution or is likely to pollute the aquatic environment. The Department of Fisheries is responsible for administering this Act.

The FRM Act lists the objectives for the management and conservation of fish and their habitats and provides a number of tools for the Department of Fisheries to use when managing fish resources. These tools include subsidiary legislation established under the Act, including the Fish Resources Management Regulations 1995, management plans, notices and orders. Under this legislation, the Minister for Fisheries can declare fish habitat protection areas and can regulate or prohibit the taking of certain fish species or can regulate or restrict certain activities in a designated area.

Under the FRM Act, the Department of Fisheries is responsible for controlling the introduction and spread of introduced fish and crayfish, and regulating fishing and fish stocking of state water bodies. It maintains the noxious fish species list and operates the FISHWATCH Service, which is responsible for receiving reports of sightings of freshwater fish species (including introduced freshwater crustaceans), mass fish kills and illegal fishing activity. The FRM Act also contains controls on establishment of **aquaculture** farms.

Aquaculture: the keeping, breeding, hatching, or culturing of fish



Figure 13. The destructive, introduced eastern gambusia, *Gambusia holbrooki*, is listed as a noxious species. Photo – C Lawrence/Department of Fisheries.

- The noxious fish species list is available from www.fish.wa.gov.au/Sustainability-and-Environment/Aquatic-Biosecurity/Translocations-Moving-Live-Fish/Pages/Noxious-Banned-Fish.aspx

Regulation of aquaculture in WA

Aquaculture operations in inland and marine environments are managed under the Act through provisions in the Fish Resources Management Regulations 1995 which are established under the Act.

Due to the intensive nature of farms, the need for clean water and high output of phosphorus and nitrogen, they have the potential to cause significant environmental harm. For this reason, there are various restrictions on starting and operating an aquaculture farm. A person must apply for an aquaculture licence to engage in aquaculture, sell fish or take fish for the purpose of sale from waters on private land or to receive or purchase fish taken from private land for the purpose of sale. Exemptions do apply such as in an instance where fish are kept for display or ornamental purposes or fish are kept at a restaurant for the purpose of serving it as a meal to the public. Depending on the location and scale of a proposal, the Environmental Protection Authority may also need to assess it. Licensees must develop Management and Environmental Monitoring Plans (MEMPs) in support of their licences (with the exception of marron licences). The penalty for engaging in aquaculture without a licence is a maximum fine of up to \$10,000 for an individual and \$20,000 for a body corporate.²⁷

Under the FRM Act, Aboriginal people are not required to hold a recreational fishing licence provided that they are fishing in accordance with continuing Aboriginal tradition and that the fish taken are for the individual or his or her family and not for a commercial purpose.

The Western Australian Government has initiated reform of fisheries legislation, and advised of the commencement of work on a new Act of Parliament to replace the *Fish Resources Management Act 1994*.²⁸

NATIONAL LEGISLATION

The Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legal framework to protect and manage nationally and internationally listed species, critical habitats, and heritage places, defined in the Act as matters of national environmental significance (NES). The Act is administered by the Australian Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) and the Australian Minister for Environment is the decision-making authority.

There are seven matters of national environmental significance that are protected under the EPBC Act:

- World Heritage properties
- National Heritage places
- Wetlands of international importance
- Listed threatened species and ecological communities
- Migratory species protected under international agreements
- Commonwealth marine areas
- Nuclear actions (including uranium mines)

In order to understand how the *Environment Protection and Biodiversity Conservation Act 1999* can benefit wetland conservation, the matters of national environmental that relate most specifically to wetlands conservation are outlined below.

Wetlands of international importance (Ramsar wetlands)

The Convention on Wetlands of International Importance Especially as Waterfowl Habitat is an international treaty that focuses on the conservation of internationally important wetlands. The Convention was signed in 1971 at a meeting in the town of Ramsar, in Iran – hence the Convention is better known as the ‘Ramsar Convention’.

The EPBC Act enhances the management and protection of Australia’s Ramsar wetlands through recognition of these sites as matters of national environmental significance. A ‘declared Ramsar wetland’ is an area that has been designated under Article 2 of the Ramsar Convention or declared by the Australian Minister for Environment to be a Ramsar wetland under the EPBC Act.



Figure 14. Lake Argyle is a declared Ramsar wetland. Photo – A Shanahan.

As a matter of national environmental significance, an action that has, will have, or is likely to have, a significant impact on the ecological character of a Ramsar wetland must be referred to the Minister and undergo an environmental assessment and approval process. An action includes a project, development, undertaking, activity, or an alteration of any of those things.

The EPBC Act provides the following definition for 'significant impact':

an action that has, will have or is likely to result in:

- (i) areas of the wetland being destroyed or substantially modified
- (ii) substantial and measurable change in the hydrological regime of the wetland (e.g. a substantial change to the volume, timing, duration and frequency of water flows to the wetland)
- (iii) seriously affected the habitat of native species dependant upon the wetland or
- (iv) a substantial and measurable change in the salinity, nutrient or pollutant levels of the wetland.

Failure to refer a proposal which has a significant impact is an offence, and is liable to a maximum civil penalty of \$550,000 for an individual and \$5.5 million for a corporation.

The EPBC Act also establishes a process for identifying Ramsar wetlands and encourages best practice management through nationally consistent management principles. The purpose of management is to (i) describe and maintain the ecological character of the wetland and (ii) to develop and implement planning that promotes conservation of the wetland and wise and sustainable use of the wetland for the benefit of humanity in a way that is compatible with the natural properties of the ecosystem.

These principles have been set out in regulations and cover matters relevant to the preparation of management plans, environment assessment of actions that may affect the site, and the community consultation process.

A management plan for a Ramsar wetland cannot be endorsed unless it is in accordance with these principles. The principles may also be used for the management of any wetland throughout Australia.

- For information on roles and responsibilities for nominating, listing and managing Ramsar wetlands, see the topic 'Roles and responsibilities' in Chapter 5.

Listed threatened species and ecological communities

The EPBC Act provides for the listing of nationally threatened native species and ecological communities, native migratory species and marine species.

The EPBC Act protects Australia's native species and ecological communities by providing for:

- 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
- where appropriate, reducing the impacts of these processes through threat abatement plans.

Any person may nominate a native species, ecological community, or threatening process for listing under any of the categories specified in the EPBC Act. An invitation to nominate is extended each year by the Minister ahead of a new assessment cycle. Nominations submitted within the advertised invitation period and that satisfy the EPBC regulations are forwarded to the Commonwealth Threatened Species Scientific Committee, who prepare a proposed priority assessment list of nominations for consideration by the Minister.

As matters of national environmental significance, any action that is likely to have a significant impact on listed threatened species and ecological communities under the EPBC Act must be referred to the Minister and undergo an environmental assessment and approval process.

Under the EPBC Act, activities in Commonwealth areas that may result in killing, injuring, taking, trading, keeping, or moving a member of a listed threatened species or ecological community, a member of a listed migratory species or a member of a listed marine species are illegal without a permit.

Most State-listed threatened species are also listed as nationally threatened under the EPBC Act. The State and Commonwealth Governments are working cooperatively to better align the State and Commonwealth threatened species lists to reduce confusion when dealing with both legislative processes.

Many of the ecological communities endorsed as TECs by the WA Minister for Environment are also listed as nationally TECs, such as those included in the listing of claypans of the Swan Coastal Plain, including Drummond claypan (Figure 15 and 16).



Figure 15. Drummond claypan, one of the claypans of the Swan Coastal Plain listed as critically endangered. Photo – J Lawn/DEC.



Figure 16. Herbs in Drummond claypan, near Toodyay, in spring, prior to the claypan drying out. Photo – M Kruger/DEC.

- ▶ DSEWCaP's 'Threatened species and ecological communities' webpage: www.environment.gov.au/biodiversity/threatened/index.html
- ▶ To find out which species and ecological communities are listed as threatened under the EPBC Act, go to the 'EPBC Act lists' webpage of the DSEWPC website: www.environment.gov.au/epbc/about/lists.html#species

Listed migratory species

Migratory species are those animals that migrate to Australia and its external territories, or pass through or over Australian waters during their annual migrations. Examples of migratory species are species of birds (such as albatrosses and petrels), mammals (such as whales) or reptiles (such as marine turtles).

Section 209 of the EPBC Act provides for the listing of those migratory species that are listed in the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), China-Australia Migratory Bird Agreement (CAMBA), Japan-Australia Migratory Bird Agreement (JAMBA) and Republic of Korea-Australia Migratory Bird Agreement (RoKAMBA).

All species on the list of migratory species are matters of national environmental significance under the EPBC Act. An action will require approval if the action has, will have, or is likely to have, a significant impact on a listed migratory species. The action must be referred to the Minister and undergo an environmental assessment and approval process. Note that some migratory species are also listed as threatened species.

- ▶ The migratory species list is available from the 'EPBC migratory species lists' webpage of the DSEWPC website: www.environment.gov.au/cgi-bin/sprat/public/publicshowmigratory.pl

POLICIES FOR WETLAND CONSERVATION

The term 'policy' is often defined as a goal or position, an official strategy to achieve an objective, a framework to manage a resource, or guidelines to assist stakeholders. The policies considered below are all government policies.

Environmental policies can be statutory or non-statutory. Administrative policies and guidelines are non-statutory instruments that state how particular laws are to be enforced and administered in practice. For instance, the EPA publishes administrative policies to establish environmental values for particular environments, provide guidance on specific matters such as threatened species and environmental offsets, and publish the position of the EPA on specific aspects of environmental protection, such as wetland protection. Non-statutory policies include EPA guidelines.

Statutory policies are those which are legally binding and enforceable by law. Examples are state planning policies (SPPs) and environmental protection policies (EPPs).

This section outlines key policies for wetland management and protection in WA as outlined in Table 2.

Wetlands Conservation Policy for Western Australia

The *Wetlands Conservation Policy for Western Australia* (Government of Western Australia 1997) is the primary policy for wetland conservation in WA. It outlines the state government's commitment to the goal of identifying, maintaining and managing wetland resources in the state, including the full range of wetland values. It also facilitates coordination across state government in matters affecting wetlands and wetland conservation.

The Wetlands Coordinating Committee was established in 1998 by the then Minister for Environment to oversee the implementation of the policy. The committee aims to implement the policy via a cooperative approach to wetland conservation involving, in particular, all levels of government, as well as the community, local groups and the private sector.

The scope of the policy applies to the full range of wetland types covered by the Ramsar definition; however, the strategy for implementation applies principally to those types of environments that are traditionally regarded as wetlands, and does not cover waterways, estuaries, floodplains or marine environments.

The policy has two main components; a statement of policy and a strategy for implementation. The five primary objectives in the statement of policy provide a framework for actions for implementation listed in the strategy.

The five primary objectives of the policy are:

1. To prevent the further loss or degradation of valuable wetlands and wetland types, and promote wetland conservation, creation and restoration.
2. To include viable representatives of all major wetland types and key wildlife habitats and associated flora and fauna within a statewide network of appropriately located and managed conservation reserves which ensure the continued survival of species, ecosystems and ecological functions.
3. To maintain, in viable wild populations, the species and genetic diversity of wetland-dependent flora and fauna.
4. To maintain the abundance of waterbird populations, particularly migratory species.
5. To greatly increase community awareness and appreciation of the many values of wetlands, and the importance of sound management of the wetlands and their catchments in the maintenance of those values.

The strategy for implementation outlines specific priority actions and the state government agency with primary (but not exclusive) responsibility for each action.

The Wetlands Coordinating Committee has overseen a review of the policy with a view to updating it.

- ▶ Web link: www.dec.wa.gov.au/management-and-protection/wetlands/publications/policies.html
- ▶ Web link to Wetlands Coordinating Committee: www.dec.wa.gov.au/management-and-protection/wetlands/wetlands-coordinating-committee.html
- ▶ For more information on the Wetlands Coordinating Committee, see the topic 'Roles and responsibilities' in Chapter 5.

Draft Framework for mapping, classification and evaluation of wetlands in Western Australia

This draft framework outlines a statewide process for the mapping, classification and evaluation of wetlands in WA. Specifically the framework aims to provide the following outcomes:

- coordination and consistency across the state in the approach to wetland mapping, classification and evaluation in WA
- greater certainty that data is collected using valid methodologies

- avoidance of repetition in project planning
- assist establishment of achievable aims in terms of scope and detail
- a mechanism to ensure that data is made publicly available
- a mechanism to endorse the results at a state level

Each stage of the mapping, classification and evaluation process is discussed independently within the framework, giving guidance on the important aspects of each stage for consideration.

- The *Draft Framework for mapping, classification and evaluation of wetlands in Western Australia*²⁹ is available on request from wetlands@dec.wa.gov.au; and when finalised will be available from the 'Wetlands' webpage of DEC website: www.dec.wa.gov.au/wetlands

Draft Guideline for the determination of wetland buffer requirements

This document provides guidance on determining an appropriate buffer distance between a wetland and a land use located in the vicinity of a wetland.

The objectives of the guideline are to:

- provide a clear, concise and repeatable method to determine a **wetland buffer**
- provide guidance on acceptable buffer distances that will ensure a wetland's values will be maintained, if not enhanced
- provide guidance on acceptable management and use of the wetland buffer area which will complement wetland conservation and protection and buffers
- provide guidance on the recommended contents in the wetland buffer report.

In essence, the guideline takes users through a logical step by step process to apply the guideline by assessing the values of the wetland, identifying the threats from the surrounding land use and determining the need and extent of a wetland buffer including management outcomes.

- Once finalised, the *Guideline for the determination of wetland buffer requirements* will be available from the 'Wetlands' webpage of DEC website: www.dec.wa.gov.au/wetlands

Guidelines checklist for preparing a wetland management plan

These guidelines are for use when a wetland management plan is required to be prepared to the satisfaction of DEC as a condition of development, subdivision or scheme amendment approval or similar.

The guidelines provide a checklist of information that should be provided in the plan.

- See: www.dec.wa.gov.au/management-and-protection/wetlands/publications.html

WA Environmental Offsets Policy

The Western Australian Government's policy position on **offsets** is outlined in this document. It serves as an overarching framework to underpin environmental offset

Wetland buffer: an interface adjoining a wetland that is designated to assist in protecting the wetland's natural values from the threats posed by the surrounding land use(s)

assessment and decision-making in Western Australia, with associated guidelines and an environmental offset register to be developed.

The policy defines direct and indirect offsets, and principles for the use of offsets. It states that the use of environmental offsets will not replace proper on-site environmental practices, such as avoidance and mitigation. It seeks to ensure that environmental offsets are applied in specified circumstances in a transparent manner to engender certainty and predictability, while acknowledging that there are some environmental values that are not readily replaceable.

- The direct web link to the *WA Environmental Offsets Policy* is www.epa.wa.gov.au/EPADocLib/WAEnvOffsetsPolicy-270911.pdf

Environmental offset: an offsite action or actions to address significant residual environmental impacts of a development or activity³⁰

Environmental protection policies (EPPs)

As described in the 'Legislation for wetland conservation' section, environmental protection policies are prepared by the EPA under Part III of the *Environmental Protection Act 1986*. Once ratified by Parliament and published in the Western Australian Government Gazette, EPPs have the force of law.

- EPPs are available from the EPPs webpage³¹ of the EPA website www.epa.wa.gov.au
- Associated digital mapping can be downloaded from the 'Spatial data' webpage³² of the EPA website.

Environmental Protection (Swan Coastal Plain Lakes) Policy 1992

Commonly referred to as the 'Lakes EPP', the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992* prohibits the filling, excavating, mining, discharge or disposal of effluent or drainage into or out of an identified wetland on the Swan Coastal Plain, unless authorised under the EP Act or any other written law. Typically, authorisation involves referral of the proposal to the EPA for environmental impact assessment.³



Figure 17. Lake Gwelup, in the northern Perth suburb of Gwelup, is one of many wetlands protected under the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992*.

'Identified wetlands' protected by the Lakes EPP are those that held 1,000 square metres or more of water on December 1, 1991. These are identified on the Department of Land Administration Miscellaneous Plan No. 1815. The map can now also be viewed in digital format (see below). The method of identifying which areas on the Swan Coastal Plain were to be subject to this policy was for the purpose of identifying administrative boundaries. Its purpose was not to use scientific methods for identifying wetland boundaries. This is an important distinction that explains why there are two wetland mapping datasets for the Swan Coastal Plain; one is administrative, identifying areas of inundation at a given date, while the other identifies the full spatial extent of a full range of wetland types. There is no process by which wetlands can be removed from Miscellaneous Plan No. 1815 or from being identified for protection by this policy.

Any prohibited activity, such as filling or excavation of an identified wetland, is required to be referred to the EPA for environmental impact assessment. Upon referral, the EPA will assess the values of the wetland and the potential impact of the proposal.

If the EPA considers that there is no significant environmental impact caused by the activity, due to the limited remaining values of the wetland or management of the activity, the EPA is unlikely to require a formal assessment.

DEC is responsible for investigating potential breaches of the Lakes EPP. A fine of \$62,500 plus \$12,500 per day for a continuing offence applies to individuals, and \$125,000 plus \$25,000 per day for a continuing offence applies to a body corporate.

- Miscellaneous Plan No. 1815 can be viewed at DEC's Perth library. The digital mapping of listed wetlands can be downloaded from the 'Spatial data' webpage³¹ of the EPA website www.epa.wa.gov.au



The draft Wetlands EPP – proposed but not enacted

As required under section 36 of the EP Act, a review of the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992* was initiated by the EPA in 1999. The EPA proposed a draft revised policy, the *Environmental Protection (Swan Coastal Plain Wetlands) Policy 2004*, widely referred to as the 'draft Wetlands EPP'. The draft Wetlands EPP proposed to prohibit a range of activities in and close to all high value wetlands on the Swan Coastal Plain. It extended its scope from those that are permanently or seasonally inundated to those wetland types that are only waterlogged. After consideration of public submissions and the advice of an independent regulatory panel in 2006, the Minister for the Environment announced to Parliament his decision not to gazette the draft revised policy and in accordance with section 31(e) of the Act published the reasons for this decision in the Government Gazette (Refusal to approve draft Environmental Protection Policy (Swan Coastal Plain Wetlands) Order 2006; No. 193, 21 November 2006). The reason for the Minister's decision was essentially that the existing mechanisms to protect wetlands, including the Environmental Protection (Clearing of Native Vegetation) Regulations 2004, were adequate, and an additional statutory mechanism was not warranted. Accordingly, the Lakes EPP remains in force.

Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998

The *Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998* (herein 'South West Wetlands EPP') protects wetlands registered under the policy from further degradation by such damaging human activities as filling, excavating, discharging of effluent, draining and damaging or clearing fringing native vegetation. It also promotes the rehabilitation of wetlands in the south west agricultural zone of the State. This area is, broadly speaking, from north of Geraldton, to east of Merredin and east Esperance.

Wetlands may be nominated for registration under the policy if they are on Crown land or on private land where landowner consent has been given. Currently there are only two wetlands on the Register of Protected Wetlands: Lake Monjigup in the Shire of Esperance and Koojeda Swamp in the Shire of Northam.³³

The EPA commenced a review of the policy in 2005, in accordance with the statutory requirement that EPPs be reviewed after seven years of operation (section 36 of the EP Act). The EPA published a report entitled *Review of the Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998*¹³ and invited submissions on this report. The EPA acknowledged that complex pressures such as salinity and altered catchment water balances are outside the scope of the policy, with many of the pressures impacting wetlands not able to be prevented through the use of a single legislative instrument such as the South West Wetlands EPP.

The EPA is responsible for preparing a revised draft policy and recommendations to be submitted to the Minister for Environment for consideration. In the interim, the existing policy remains in force.

Environmental Protection (Western Swamp Tortoise Habitat) Policy 2011

The western swamp tortoise (*Pseudemys umbrina*) (Figure 18) is the most endangered tortoise/turtle species on Earth. It is listed under the *Wildlife Conservation Act 1950*, the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* and the United Nations Convention on International Trade of Endangered Species (CITES) as a critically endangered species.



Figure 18. Adult male *Pseudemys umbrina* at Ellen Brook Nature Reserve. Photo - G Kuchling.

The purpose of the Western Swamp Tortoise Habitat EPP is to protect habitat suitable for the long-term survival of the wild populations of the western swamp tortoise. It designates a policy area encompassing the known wild habitat of the tortoise (Twin Swamps Nature Reserve, Bullsbrook and Ellen Brook Nature Reserve, Upper Swan and surrounding areas in the City of Swan, north-east of Perth on the Swan Coastal Plain). The EPP outlines a range of decision or actions taken under various Acts which must have regard to the policy, and a range of activities that are considered may degrade the tortoise habitat, including the abstraction of groundwater, the use of fertilisers and pesticides, waste disposal, mining, clearing and lighting unauthorised fires. The EPP outlines a program of protection for landowners and local and state government to implement.

This policy replaces the *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002*. The policy should be read in conjunction with the environmental assessment guideline *Guidance Statement No. 7 Protection of the Western Swamp Tortoise Habitat, Upper Swan/Bullsbrook* (described below).

Environmental Protection Authority environmental protection bulletins

EPA environmental protection bulletins (formerly position statements) are published as a means of informing the public about the EPA's views on matters of environmental importance and to define important environmental values and functions. They are not statutory documents.

- EPA environmental protection bulletins are available from the EPA website: www.epa.wa.gov.au

Two environmental protection bulletins are considered most specific and/or pertinent to wetland protection and management:

- Position Statement No. 4 *Environmental Protection of Wetlands*
- Position Statement No. 9 *Environmental Offsets*

Position Statement No. 4 Environmental Protection of Wetlands

Position Statement No. 4 presents the EPA's principles and overarching goals for wetlands and the aspects of wetland protection that are considered important in guiding decisions and advising government.

It lists significant environmental values and functions of wetlands, including primary production, recreational and landscape amenity, hydrological balance, water quality protection and wildlife habitat, and recognises wetlands as being among the most biologically productive and diverse habitats in the State.

It states that the EPA's overarching goals for wetlands are:

- to protect the environmental values and functions of wetlands in Western Australia;
- to protect, sustain and, where possible, restore the biological diversity of wetland habitats in Western Australia;
- to protect the environmental quality of the wetland ecosystems in Western Australia through sound management in accordance with the concept of 'wise use', as described in the Ramsar Convention, and ecologically sustainable development principles, regardless of land use or activity; and
- to have as an aspirational goal, no net loss of wetland values and functions.

Position Statement No. 9 Environmental Offsets

Note: the EPA has stated that Position Statement No. 9 is being updated.

Position Statement No. 9 establishes the EPA's policy on emissions and ecological offsets. The focus of this position statement is those proposals that are deemed to pose significant adverse impacts to ecosystems and or contribute emissions to the environment.

The EPA policy position is that environmental offsets should be used with an aspirational goal of achieving a 'net environmental benefit'. This position recognises that the environment has been significantly compromised in the past and that halting and reversing the decline of the environment is now a priority.

Achieving a net environmental benefit means that each offset proposal should address **direct offsets** and **contributing offsets** to meet the following offset principles:

- environmental offsets should only be considered after all other reasonable attempts to mitigate adverse impacts have been exhausted
- an environmental offset package should address both direct offsets and contributing offsets
- environmental offsets should ideally be 'like for like or better'
- positive environmental offset ratios should apply where risk of failure is apparent
- environmental offsets must entail a robust and consistent assessment process
- environmental offsets must meet all statutory requirements
- environmental offsets must be clearly defined, transparent and enforceable
- environmental offsets must ensure a long lasting benefit.

Position Statement No. 9 also establishes **critical environmental assets**. These represent the most important environmental assets in the state that must be fully protected and conserved. The position statement establishes the EPA's presumption against recommending approval for proposals that are likely to have significant adverse impacts to 'critical assets'. The EPA does not consider it appropriate to validate or endorse the use of environmental offsets where projects are predicted to have significant adverse impacts to critical assets. Many wetlands are identified as critical assets:

- Ramsar wetlands core conservation areas
- wetlands listed in *A Directory of Important Wetlands in Australia*, 3rd edition³⁴ and more recent additions as contained in the *Australian Wetlands Database*³⁵
- environmental protection policy (EPP) wetlands
- conservation category wetlands identified in the *Geomorphic Wetlands Swan Coastal Plain* dataset^{36,3} (see also EPA 2008³)

Many wetlands also support critical assets such as threatened ecological communities, declared rare flora and threatened fauna.

Direct offsets: activities which counterbalance the environmental impact of a proposal and are in addition to normal environmental management requirements. This includes restoration (offsite), rehabilitation (offsite), re-establishment, sequestration and acquisition of other land/s under threat for inclusion into conservation estate.

Contributing offsets: complementary activities which, together with direct offsets, meet the offset principles. These include education, research, removal of threats, and or contribution to an approved credit trading scheme or trust fund.

Environmental Protection Authority environmental assessment guidelines statements

Environmental assessment guidelines (formerly guidance statements) are developed by the Environmental Protection Authority specifically to assist proponents, responsible authorities, consultants and the public to achieve environmentally acceptable outcomes. In particular, guidance statements aim to inform stakeholders about aspects of the environmental impact assessment process, views of the EPA and the minimum requirement for environmental management that the EPA would expect to be met when a proposal is considered during the process. Proponents are encouraged to do better than the minimum.

- EPA environmental assessment guidelines are available from the EPA website: www.epa.wa.gov.au/Policies_guidelines/EAGs/guidance/Pages/ReportPages.aspx

Five environmental assessment guidelines are considered most specific and/or pertinent to wetland protection and management:

- Guidance Statement No 7 *Protection of the Western Swamp Tortoise Habitat, Upper Swan/Bullsbrook*
- Guidance Statement No 10 *Levels of assessment for proposals affecting natural areas within the System 6 region and the Swan Coastal Plain portion of the System 1 region*
- Guidance Statement No 19 *Environmental offsets*
- Guidance Statement No 28 *Protection of Lake Clifton catchment*
- Guidance Statement No 33 *Environmental guidance for planning and development*
- Guidance Statement No 40 *Management of mosquitoes by land developers*

Guidance Statement No. 7 Protection of the Western Swamp Tortoise Habitat, Upper Swan/Bullsbrook

The purpose of guidance statement no. 7 is to protect the habitat of the critically endangered western swamp tortoise (*Pseudemydura umbrina*) in the Ellen Brook Nature Reserve, Bullsbrook and the Twin Swamps Nature Reserve, Upper Swan (managed by DEC). These are the only two areas where populations of the western swamp tortoise have been continuously recorded since the 1960s. The policy area is as defined in the *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2011* (the western swamp tortoise habitat EPP), which contains the surface and groundwater catchment around the Twin Swamps Nature Reserve and Ellen Brook Nature Reserve. These catchments are poorly understood and therefore application of the precautionary principle prevails in defining the boundary of the policy area and in managing the habitat for the tortoise.

This guidance statement identifies activities and development that are incompatible near the tortoise habitat, such as intensive animal industries, subdivision and vegetation clearing. The guidance statement provides guidance on the environmental impact assessment of proposals that may impact on the tortoise habitat areas.

- Direct link: www.epa.wa.gov.au/EPADocLib/2138_GS7.pdf

Critical environmental assets: the most important environmental assets in the state that should be protected and conserved

Guidance Statement No. 10 Level of assessment for proposals affecting natural areas within the System 6 region and the Swan Coastal Plain portion of the System 1 region

The purpose of guidance statement no. 10 is to address the environmental impact assessment of proposals, planning schemes and scheme amendments involving the clearing of, or other significant impacts to, natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 area (Figure 19).

Specifically, the intended purpose of this guidance statement is to ensure that proponents or responsible authorities planning and designing schemes and proposals potentially impacting on bushland protected by *Bush Forever* and other regionally significant natural areas are guided on the likely manner in which the EPA will assess their schemes and proposals. It aims to ensure developments are compatible with the identified conservation values of these areas.

Wetlands identified as other regionally significant areas under this guidance statement include wetlands listed as nationally significant in *A Directory of Important Wetlands in Australia*^{34,35} and conservation category wetlands in the *Geomorphic Wetlands Swan Coastal Plain* dataset.³⁶

► Direct link: www.epa.wa.gov.au/EPADocLib/1015_GS10.pdf

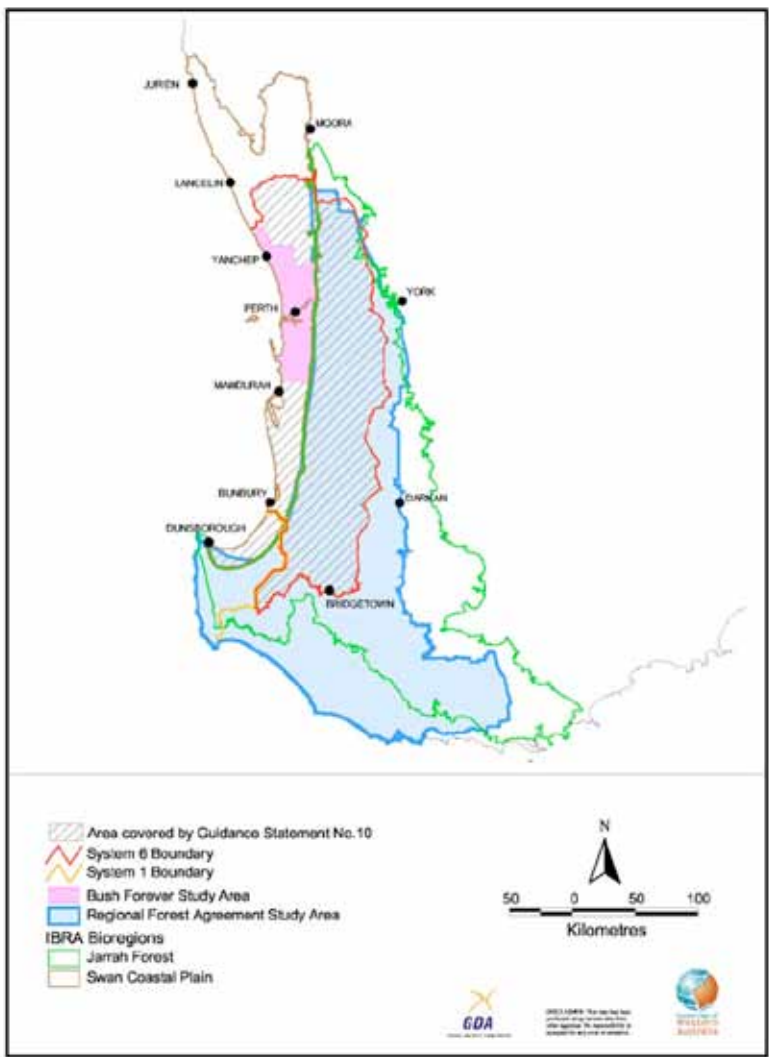


Figure 19. Area covered by Guidance Statement No. 10 and areas referred to in the guidance statement.

Guidance Statement No. 19 Environmental offsets

Guidance Statement No. 19 specifically addresses environmental offsets for proposals or schemes subject to environmental impact assessment that impact on biodiversity. It should be read in conjunction with Position Statement No. 9 *Environmental Offsets* (EPA 2006). The guidance statement was developed to augment the position statement in order to clarify several issues relating to its interpretation and implementation.

This guidance statement provides clarification of these issues, particularly in relation to the technical application of biodiversity offsets and the presentation of offsets packages to the EPA. Generally, it outlines the EPA's expectations and requirement for environmental offsets associated with development proposals and planning schemes subject to environmental impact assessment. It also encourages proponents and responsible authorities to demonstrate that requirements in this guidance statement are incorporated into proposals and schemes, in a way that ensures that they are enforceable and auditable.

► Direct link: www.epa.wa.gov.au/EPADocLib/2783_GS19OffsetsBiodiv18808.pdf

Guidance Statement No. 28 Protection of the Lake Clifton catchment

The purpose of this guidance statement is to describe the position of the EPA in relation to protection of Lake Clifton, identified by the EPA as one of the most significant wetlands in Western Australia. It describes environmental criteria established by the EPA as a basis for managing new land uses and changes to certain existing land uses on private land within the catchment of Lake Clifton.

Environmental criteria described in the guidance statement focus on maintaining the ecological integrity of Lake Clifton to support its internationally significant, threatened ecological community of **thrombolites** (Figure 20). In particular the guidance statement addresses the need to maintain water balance in the Lake Clifton catchment, and manage nutrient loads and developments in order to protect the thrombolites, wetland vegetation and the buffer of Lake Clifton.

► Direct link: www.epa.wa.gov.au/EPADocLib/1023_GS28.pdf



Figure 20. The ancient thrombolites of Lake Clifton. Photo – K Wilson.

Thrombolite: a type of microbial structure formed by microbial communities precipitating calcium carbonate

Guidance Statement No. 33 Environmental Guidance for Planning and Development

Chapter B4 of EPA Guidance Statement No. 33 is a key reference for information on the management and protection of wetlands via WA's land use planning and development processes.

It provides an extensive list of wetlands that, for the purposes of environmental impact assessment, the EPA considers to be of high conservation significance and to require a high level of protection. This list is available on page 4 of Chapter B4. A proposal that is likely, if implemented, to have a significant impact on any of these wetlands is likely to require referral to the EPA for environmental impact assessment under Part IV of the EP Act. Examples of significant impacts include: clearing of native vegetation, mining, filling, excavating, draining or disposal of waste, allowing emissions into the wetland, and activities located near the wetland without the provision of an appropriate setback or buffer, such as clearing or groundwater abstraction.

Other chapters outline how other environmental factors, such as water in the landscape more generally, should be managed via the land use planning system.

It should be noted that some information in the guidance statement is now out of date. In particular, the information regarding the levels of assessment that EPA may assign to a proposal is no longer current, with the previous five levels superceded by two levels. Furthermore a range of appeal rights previously available within the environmental impact assessment process have been removed.

► Direct link: www.epa.wa.gov.au/EPADocLib/2717_GS33.pdf

Guidance Statement No. 40 Management of Mosquitoes by Land Developers

Guidance no. 40 provides information on what the EPA will consider when assessing proposals where mosquito management is a relevant environmental factor in an environmental impact assessment. Importantly, it identifies that responsibility for managing mosquitoes lies with land developers as well as local government authorities.

Physical, chemical and biological methods of controlling nuisance mosquito populations can have significant environmental impacts on wetlands. In this guidance statement the EPA establishes its expectation that mosquito control measures should maintain healthy wetland ecosystems and minimise the physical alteration of wetlands. The use of water sensitive urban design principles is also encouraged to ensure appropriate management of urban stormwater.

► Direct link: www.epa.wa.gov.au/EPADocLib/1025_GS40.pdf

State Planning Policies

The Western Australian Planning Commission develops state planning policies in accordance with the statutory procedures set out under Part 3 of the *Planning and Development Act 2005*. These are statutory instruments concerned with broad planning controls and/or specific matters, which may be the subject of a local planning scheme or relate to a specific region or area of the state. Some are titled 'statements of planning policy' while others are a 'state planning policy', though all are generically referred to as 'state planning policies' (or SPPs for short) and identified as such in this topic. There are a number that relate specifically to wetlands or are pertinent to wetland protection and management:

- *State Planning Policy 2 Environment and Natural Resources Policy* (2003)
 - *State Planning Policy 2.1 Peel-Harvey Coastal Plain Catchment* (1992)
 - *State Planning Policy 2.2 Gnangara Groundwater Protection* (2005)
 - *State Planning Policy 2.3 Jandakot Groundwater Protection* (1998)
 - *State Planning Policy 2.8 Bushland Policy for the Perth Metropolitan Region* (2005)
 - *State Planning Policy 2.9 Water Resources* (2006)
- State planning policies are available from www.planning.wa.gov.au/5132.asp

State Planning Policy 2 Environment and Natural Resources Policy

SPP 2 is a broad, overarching state planning policy that addresses environmental protection and the use of the state's natural resources.

In regards to wetlands, it identifies areas of high biodiversity and/or conservation value, including the following wetlands:

- Ramsar wetlands and wetlands recognised as habitat for migratory species
- nationally significant wetlands listed in the *Directory of Important Wetlands in Australia*^{34,35}
- wetlands identified in any relevant Environmental Protection Policy (EPP), such as the Swan Coastal Plain Lakes EPP and the South-West Agricultural Zone EPP

SPP 2 states that planning strategies, schemes and decision-making should protect these areas via the use of protection mechanisms; avoiding potential impacts of land use or development; the establishment of a comprehensive, adequate and representative reserve system; suitable ecological linkages and habitat corridors; use of planning controls and conservation covenants and management plans.

SPP 2 also recognises that the careful management of water resources, both in terms of quantity and quality, is essential to support natural ecosystems. With respect to wetlands it states that planning strategies, schemes and decision-making should consider mechanisms to protect, manage, conserve and enhance these groups of wetlands; ensure maintenance of water quality and quantity for the environment; encourage water sensitive design in the urban environment to protect wetlands; ensure adequate setbacks (buffers) to maintain and improve their ecological function; and consider the risks associated with nuisance or disease vector insects (midge and mosquitoes) and manage potential conflict with amenity, health and environmental values.

- Direct link: www.planning.wa.gov.au/publications/1161.asp

State Planning Policy 2.1 Peel-Harvey Coastal Plain Catchment

SPP 2.1 establishes appropriate planning controls to prevent land use changes within the catchment of the Peel-Harvey estuarine system that are likely to cause environmental damage to the estuary. The catchment of the estuary contains extensive areas of wetland, including many significant wetlands. A key purpose of this policy is to ensure that landowners seek development approval prior to committing their investments. The policy does not require a new series of approvals for existing developments. This policy has implications for wetlands in the catchment of the estuary, through restrictions placed on rezoning of land for urban processes, management of intensive agriculture to reduce or eliminate nutrient export from the land, restrictions placed on vegetation clearing and keeping of livestock and specific drainage and sewage requirements for specific development proposals.

► Direct link: www.planning.wa.gov.au/publications/1162.asp

State Planning Policy 2.2 Gnangara Groundwater Protection

The purpose of SPP 2.2 is to prevent, control and manage development and land use changes in Gnangara, Wanneroo and Mirrabooka that are likely to cause detrimental effects to the groundwater resources in the policy area. The policy area extends into the Cities of Wanneroo and Swan and the Shires of Gingin and Chittering. The policy applies to all land use activities on zoned and reserved land, recreational land uses, and public areas in the policy area. SPP 2.2 facilitates the identification and zoning/reservation of land for groundwater protection purposes.

The main objectives of the policy are to:

- ensure that all land use changes in the policy area are compatible with the long-term protection and management of groundwater quality and quantity for public drinking water supply. This is assisted by the identification of priority areas for source protection and the activities deemed acceptable within each of these priority areas
- protect groundwater quality and quantity in order to maintain the dependent ecosystems, ecological values and integrity of wetlands and native vegetation, in accordance with recognised conservation values
- protect and/or enhance the quality and quantity of groundwater, in accordance with accepted water quality guidelines and standards for various uses.

► Direct link: www.planning.wa.gov.au/publications/1164.asp

State Planning Policy 2.3 Jandakot Groundwater Protection

The purpose of SPP 2.3 is to ensure development over the Jandakot groundwater mound is compatible with long-term use of groundwater for human consumption. Under SPP 2.3 land use changes within the policy area that are likely to cause detrimental effects to the groundwater are brought under planning control and prevented or managed. The policy area extends into the following local governments: the cities of Armadale, Canning, Cockburn, Gosnells; the Town of Kwinana and the Shire of Serpentine-Jarrahdale.

The objectives of the policy are to:

- ensure that all land use changes in the policy area are compatible with the long-term protection and management of groundwater for public supply and maintenance of ecosystems
- to prevent land uses likely to result in contamination of groundwater through nutrient or contamination export
- to balance environmental protection with the economic viability of the existing land uses
- to maintain or increase natural vegetation cover over the policy area and
- to protect groundwater quality and quantity in the policy area in order to maintain the ecological integrity of important wetlands hydraulically connected to that groundwater, including wetlands outside the policy area.

► Direct link: www.planning.wa.gov.au/publications/1165.asp

State Planning Policy 2.8 Bushland Policy for the Perth Metropolitan Region

SPP 2.8 provides a statutory policy and implementation framework to ensure bushland protection and management issues in the Perth Metropolitan Region (PMR) are appropriately addressed and integrated with broader land use planning and decision-making, to secure long-term protection of biodiversity and associated environmental values.

It addresses the protection and management of the 51,200 hectares of regionally significant bushland contained within 287 Bush Forever sites identified in *Bush Forever*.^{37,38} Many of these sites contain significant wetlands. SPP 2.8 outlines policy measures which are to apply to any proposal or decision-making that is likely to have an adverse impact on regionally significant bushland within Bush Forever sites.

It also addresses bushland (inclusive of wetlands) with regional values that were not designated as Bush Forever sites due to wider social and economic considerations. It supports the preparation of local bushland/biodiversity protection strategies by all local governments within the Perth Metropolitan Region, which in turn, should inform local and regional planning strategies.

SPP 2.8 states that proposals or decision-making should support a general presumption against clearing of bushland or other degrading activities in natural areas that support values, including significant wetlands including conservation category wetlands, wetlands protected under the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992*; and their buffers.

► Direct link: www.planning.wa.gov.au/publications/1170.asp

State Planning Policy 2.9 Water Resources

The purpose of SPP 2.9 is to ensure water resources are conserved and their quality protected where possible through the land use planning system.

The objectives of SPP 2.9 are to:

- protect, conserve and enhance water resources that are identified as having significant economic, social, cultural and/or environmental values
- assist in ensuring the availability of suitable water resources to maintain essential requirements for human and all other biological life with attention to maintaining or improving the quality and quantity of water resources
- promote and assist in the management and sustainable use of water resources.

In regards to wetlands, SPP 2.9 specifically states that planning should contribute to their protection and wise management by ensuring local and regional planning strategies, structure plans, schemes, subdivisions, strata subdivision and development applications:

- protect, manage, conserve and enhance the environmental attributes, functions and values of significant wetlands, such as Ramsar wetlands, conservation category wetlands and wetlands identified in any relevant environmental protection policy
- manage, conserve and, where possible, restore the environmental attributes, functions and values of resource enhancement wetlands
- ensure use of best management practices in the development and use of multiple use wetlands, consistent with the principles of total water cycle management
- ensure adequate and appropriate buffering of wetlands to maintain or enhance the environmental attributes, functions and values of the water resource and minimise the impact of nearby land uses, both existing and future.

► Direct link: www.planning.wa.gov.au/publications/742.asp

Planning bulletin 64/2009: Acid sulfate soils

The purpose of this planning bulletin is to provide advice and guidance on matters that should be taken into account in the rezoning, subdivision and development of land that contains acid sulfate soils.

This planning bulletin introduces a set of revised *Acid sulfate soils planning guidelines*, which outline the range of matters which need to be addressed at various stages of the planning process to ensure that the subdivision and development of land containing acid sulfate soils is planned and managed to avoid potential adverse impacts on the natural and built environment.

The bulletin supersedes *Planning Bulletin 64 Acid sulfate soils* (2003), and the planning guidelines and risk maps appended to it.

► Direct link: www.planning.wa.gov.au/publications/726.asp

Acid sulfate soils planning guidelines

The guidelines outline the range of matters which need to be addressed at various stages of the planning process.

This is to ensure that the subdivision and development of land containing acid sulfate soils is planned and managed to avoid potential adverse impacts on the natural and built environment.

- Direct link: www.planning.wa.gov.au/publications/725.asp

Policy framework for inland drainage

This aim of this policy is to facilitate the use of drainage as an option to manage salinity and waterlogging in inland WA. This policy addresses the key areas of governance, risk management, planning and assessment, and operation and maintenance of drainage projects in inland Western Australia. In doing so, the framework seeks to guide better management of water resources and public assets, including wetlands of conservation value.

Appendix 1 of the framework outlines roles and responsibilities of a range of stakeholders. Appendix 2 outlines the principles for drainage proposal assessment.

- Direct link: www.water.wa.gov.au/PublicationStore/first/104329.pdf

Better Urban Water Management Strategy

The purpose of the *Better Urban Water Management Strategy* is to facilitate water sensitive urban design on the Swan Coastal Plain with particular concern for the Swan-Canning and Vasse-Geographe catchments. The implementation of this strategy is a critical to the protection of wetlands on the Swan Coastal Plain.

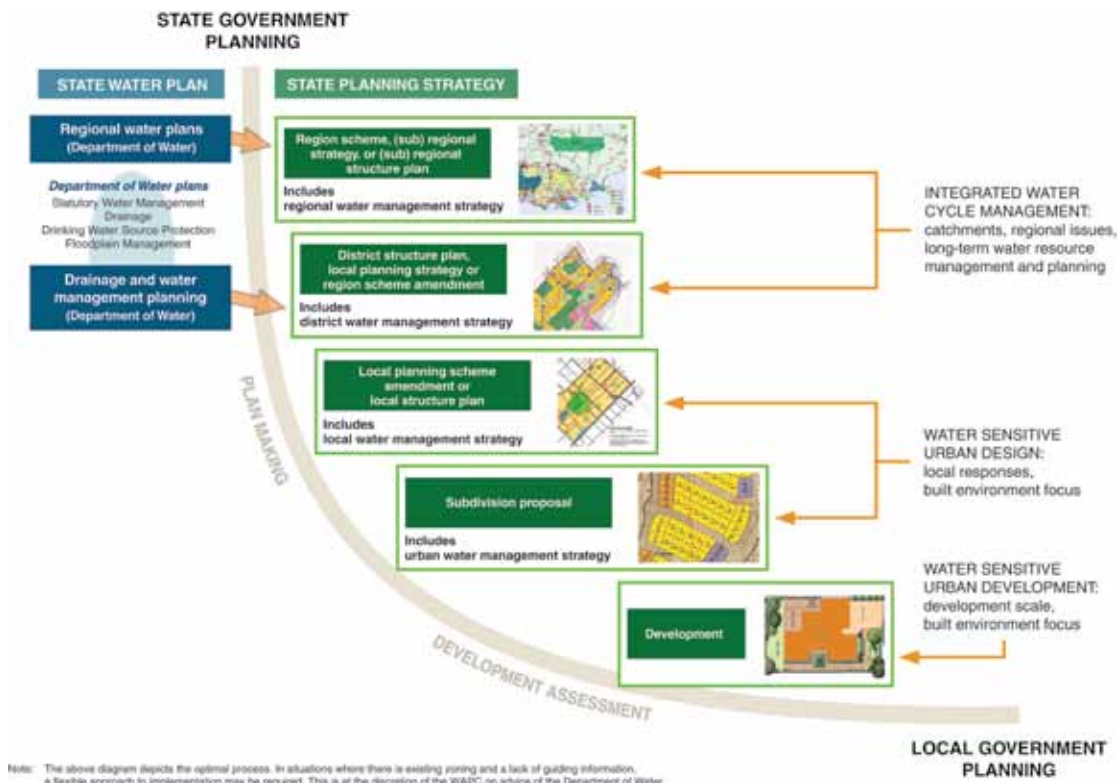


Figure 21. Better integration of land and water planning processes, as established in *Better Urban Water Management*, means more holistic consideration of wetlands and better wetland outcomes. Figure – Western Australian Planning Commission.

This strategy provides guidance on urban water management matters which need to be considered by the Western Australian Planning Commission, local governments and applicants when reviewing planning proposals and applications for new residential, rural-residential, commercial and industrial areas.

The strategy facilitates better management and use of urban water resources by providing a framework for consideration of water resources at each planning stage (Figure 21). It also identifies the agencies responsible for provision of water resource information.

The design criteria identified as a guide for development of better urban water management systems include:

- water conservation and efficiency
- water quantity management
- water quality management
- stormwater modelling criteria
- disease vector and nuisance insect management.

► Direct link: www.planning.wa.gov.au/publications/741.asp

State Water Plan

The *State Water Plan 2007* provides a framework for water resources management in Western Australia, with a planning horizon to 2030. It is a whole-of-government initiative with 11 agencies sharing more than 100 priority actions over the first five years. It addresses the challenges of climate change and variability, resource scarcity and the increasing demand for water. It takes a whole-of-the-water-cycle approach – from protecting water resources to recycling. This improves certainty of future water availability for the environment, the community and all water users.

It establishes the vision: *'Our precious water resources are managed and developed in a sustainable manner to maintain and enhance our natural environment, cultural and spiritual values, our quality of life and the economic development of the state.'*

This vision is underpinned by seven key objectives:

- use and recycle water wisely
- plan and manage water resources sustainably
- invest in science, innovation and education
- protect ecosystems, water quality and resources
- enhance the security of water for the environment and use
- develop water resources for a vibrant economy
- deliver services for strong and healthy communities.

► Direct link: www.water.wa.gov.au/PublicationStore/first/74923.pdf

Water allocation planning in Western Australia: a guide to our process

This Department of Water document describes the water allocation planning process, which governs how much water can be licensed for abstraction under clauses 5D and 26D of the *Rights in Water and Irrigation Act 1914* and how much water is left in the system for the environment.

It outlines the documents prepared and the opportunities for community input into these documents at various stages in the planning process.

Associated resources include:

- *Groundwater risk-based allocation planning process*²⁵ provides information on how ecological water requirements for groundwater dependent ecosystems are taken into consideration in the allocation planning process.
- Department of Water's webpage: www.water.wa.gov.au/allocationplanning
- Direct link: www.water.wa.gov.au/PublicationStore/first/100774.pdf

Stormwater management manual for Western Australia (DoW 2004–2008)

The stormwater management manual has been developed to provide best practice advice and **stormwater** management options that may be suitable to a range of built environments across WA.

The manual identifies objectives for stormwater management in WA, that have significant potential to positively impact wetland management and protection:

- water quality - to maintain or improve the surface and groundwater quality within the development areas relative to pre development conditions
 - water quantity - to maintain the total water cycle balance within development areas relative to pre development conditions.
 - water conservation - to maximise the reuse of stormwater.
 - ecosystem health - to retain natural drainage systems and protect ecosystem health.
 - development - to ensure delivery of best practice stormwater management through planning and development in accordance with sustainability and precautionary principles.
- Direct link: www.water.wa.gov.au/Managing+water/Urban+water/Stormwater/default.aspx#1

Decision process for stormwater management in WA (DoW 2009)

Within the manual, a decision process is outlined which provides a framework for the planning and design of stormwater management systems and provides guidance to identify what stormwater management issues need to be addressed during land development and redevelopment projects.

The methodology outlined in the decision process also aims to minimise changes to the volume of surface water flows and peak flows resulting from the urbanisation of an area.

Stormwater: water flowing over ground surfaces and in natural streams and drains as a direct result of rainfall over a catchment

The management of these changes has important implications for wetland management and protection by reducing negative impacts on the water regime, water quality, habitat diversity and biodiversity in receiving water bodies.

It states that wetlands should be retained and restored; that no new constructed stormwater infrastructure should be installed in conservation or resource enhancement management category wetlands or their buffers, or other wetlands of high conservation significance or their buffers unless authorised by DEC or EPA. It also states a presumption against the creation of artificial lakes or permanently inundated water bodies.

- Direct link: www.water.wa.gov.au/Managing+water/Urban+water/Stormwater/Decision+process+and+management+objectives/default.aspx#1



Figure 22. Requirements regarding the placement of stormwater infrastructure in and near wetlands is outlined in the *Decision process for stormwater management in WA*. Photo – J Lawn.

Wetland Policy of the Commonwealth Government of Australia (Commonwealth Government of Australia 1997)

The purpose of the Commonwealth wetland policy is to build wetland conservation into the daily business of the Commonwealth Government. The stated goal of the policy is to conserve, repair and manage wetlands wisely. To achieve this, the policy sets out six strategies, which encompass Commonwealth responsibilities from managing commonwealth lands and waters, to international actions.

GLOSSARY

Aquaculture: the keeping, breeding, hatching, or culturing of fish

Authorisation: a licence, permit, approval or exemption granted, issued or given under the Part V environmental regulations

Clearing: any act that kills, destroys, removes or substantially damages native vegetation in an area. This includes severing or ringbarking of trunks or stems, draining or flooding of land, burning of vegetation and grazing of stock or any other act or activity that causes damage to some or all of the native vegetation in an area.

Contributing offsets: complementary activities which, together with direct offsets, meet the offset principles. These include education, research, removal of threats, and or contribution to an approved credit trading scheme or trust fund.

Critical environmental assets: the most important environmental assets in the state that should be protected and conserved

Decision making authority: a public authority empowered to make a decision in respect of a proposal. Often abbreviated to DMA.

Derived proposal: a proposal referred to the Environmental Protection Authority under section 38 of the *Environmental Protection Act 1986* that is declared by the EPA to have been identified in a strategic proposal that has been assessed and granted approval under Part IV of the Act⁴

Direct offsets: activities which counterbalance the environmental impact of a proposal and are in addition to normal environmental management requirements. This includes restoration (offsite), rehabilitation (offsite), re-establishment, sequestration and acquisition of other land/s under threat for inclusion into conservation estate.

Enacted: to make into law

Endorsed management plan: a management plan that has been approved and/or modified by the Minister for the Environment as he/she thinks fit

Environmental impact assessment: an orderly and systematic process for evaluating a scheme or proposal, including its alternatives where relevant, and its effects on the environment, including the mitigation and management of those effects

Environmental offset: an offsite action or actions to address significant residual environmental impacts of a development or activity²⁹

Environmental protection policies: whole of government policies which have been agreed to by Parliament and have the force of law as if part of the Act

Government Gazette: a government publication issued by the State Government which includes details of statutory matters, available from the State Law Publishers

Local planning scheme: a set of provisions that identifies the way land in the scheme area is to be used and developed. It may comprise a scheme map(s), a text and an explanatory report.¹⁶

Metropolitan Regional scheme (MRS): the region planning scheme for the Perth region

Native vegetation: native aquatic or terrestrial vegetation, and includes dead vegetation unless that dead vegetation is of a class declared by regulation to be excluded from this definition but does not include vegetation in a plantation or which was

intentionally sown, planted or propagated unless that vegetation was sown, planted or propagated as required under law

Prescribed premises: premises prescribed for the purposes of Part V of the *Environmental Protection Act 1986* as specified in Schedule 1 of the *Environmental Protection Regulations 1987*

Proponent: the person who is responsible for the proposal, or the public authority on which the responsibility for the proposal is imposed under a written law

Public open space: land used or intended for use for recreational purposes by the public; it includes district, neighbourhood and local open spaces and parks, but excludes regional open space or foreshore reserves¹⁷

Red list criteria: developed by the International Union for the Conservation of Nature (IUCN) to allocate species of flora and fauna into threat categories of critically endangered, endangered and vulnerable, based on their likelihood of becoming extinct

Regional open space: land defined under a region scheme, regional structure plan or sub-regional structure plan as a parks and recreation reserve or regional open space reserve, to accommodate active and passive recreation such as major playing fields and/or regional conservation and environmental features¹⁷

Region planning scheme (region scheme): a planning scheme prepared for matters of state or regional importance to enable effective planning and coordination of land use and development. Also known as a region scheme.¹⁶

Regulation: a law made under the authority of an Act of Parliament

Reserved: set aside for public purposes

Scheme: a redevelopment scheme, a region planning scheme, a local planning scheme or a State planning policy to which section 32 of the *Planning and Development Act 2005* applies, or an amendment to any of these

Significant proposal: a proposal likely, if implemented, to have a significant effect on the environment

State Environmental Policies (SEPs): non-statutory policies which are developed by the EPA under provisions of Part II of the EP Act through public consultation and are adopted following Cabinet consideration and approval

Statute: a law enacted by the State or the Federal Parliament

Strategic proposal: a future proposal that will be a significant proposal; or future proposals likely, if implemented in combination with each other, to have a significant effect on the environment

Structure plan: a plan that provides a framework for the coordinated provision of land use, development, infrastructure and allocation of services at either the regional, district or local level. Not always a statutory requirement.

Stormwater: water flowing over ground surfaces and in natural streams and drains as a direct result of rainfall over a catchment⁴⁹

Subdivision: the division of land into lots

Threatened ecological community: naturally occurring biological assemblages that occur in a particular type of habitat that has been endorsed by the WA Minister for Environment as being subject to processes that threaten to destroy or significantly modify it across much of its range

Threatened fauna: fauna that is rare or likely to become extinct and gazetted as such by the Minister for Environment

Threatened flora: flora that has been assessed as being at risk of extinction or is rare or otherwise in need of special protection and gazetted as such by the Minister for Environment. These species are commonly referred to as declared rare flora

Thrombolite: a type of microbial structure formed by microbial communities precipitating calcium carbonate

Wetland buffer: an interface adjoining a wetland that is designated to assist in protecting the wetland's natural values from the threats posed by the surrounding land use(s)

PERSONAL COMMUNICATIONS

| Name | Date | Position | Organisation |
|---------------|------------|---|---|
| Dr Ken Atkins | 17/12/2012 | Manager, Species and Communities Branch | Department of Environment and Conservation, Western Australia |

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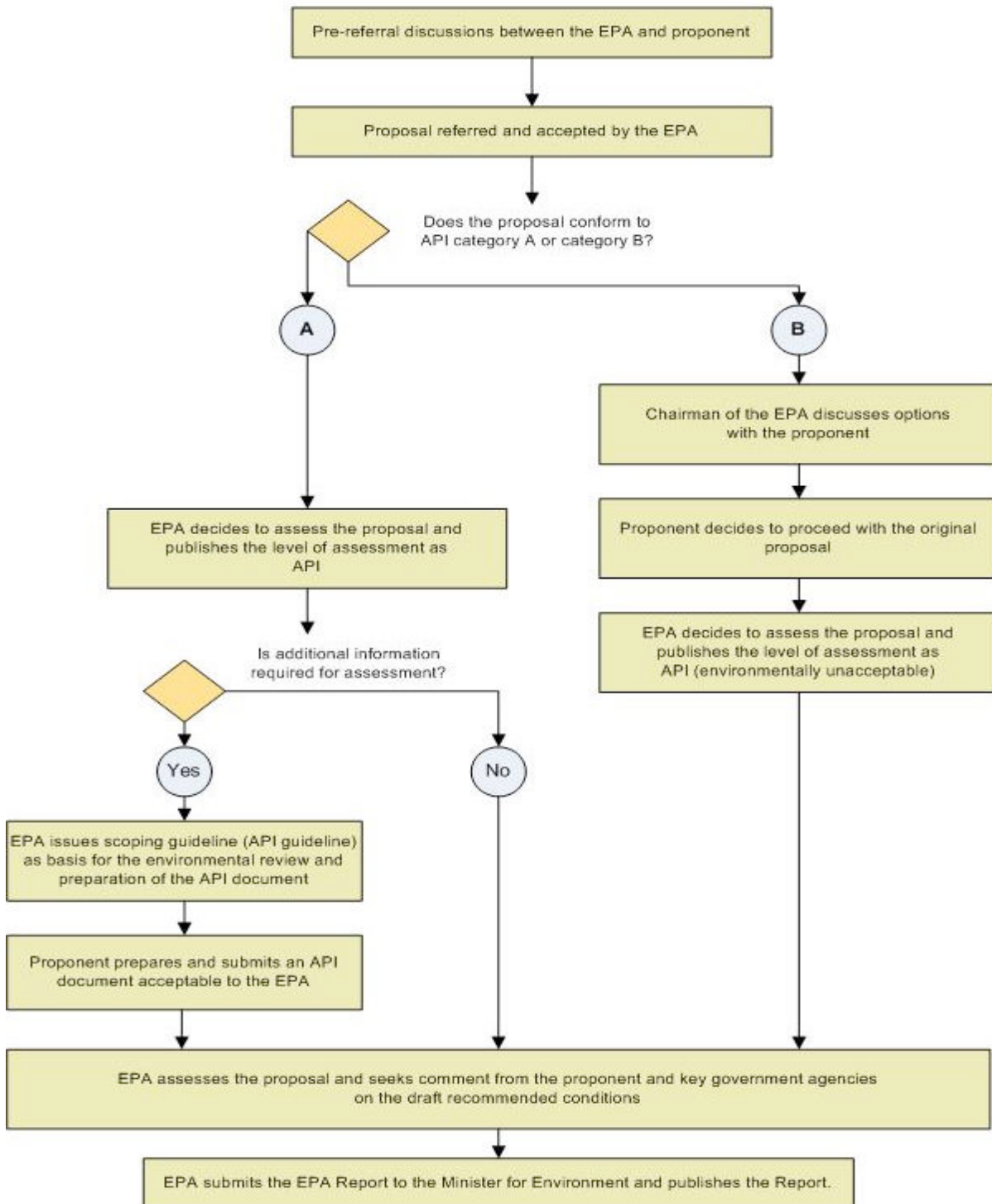
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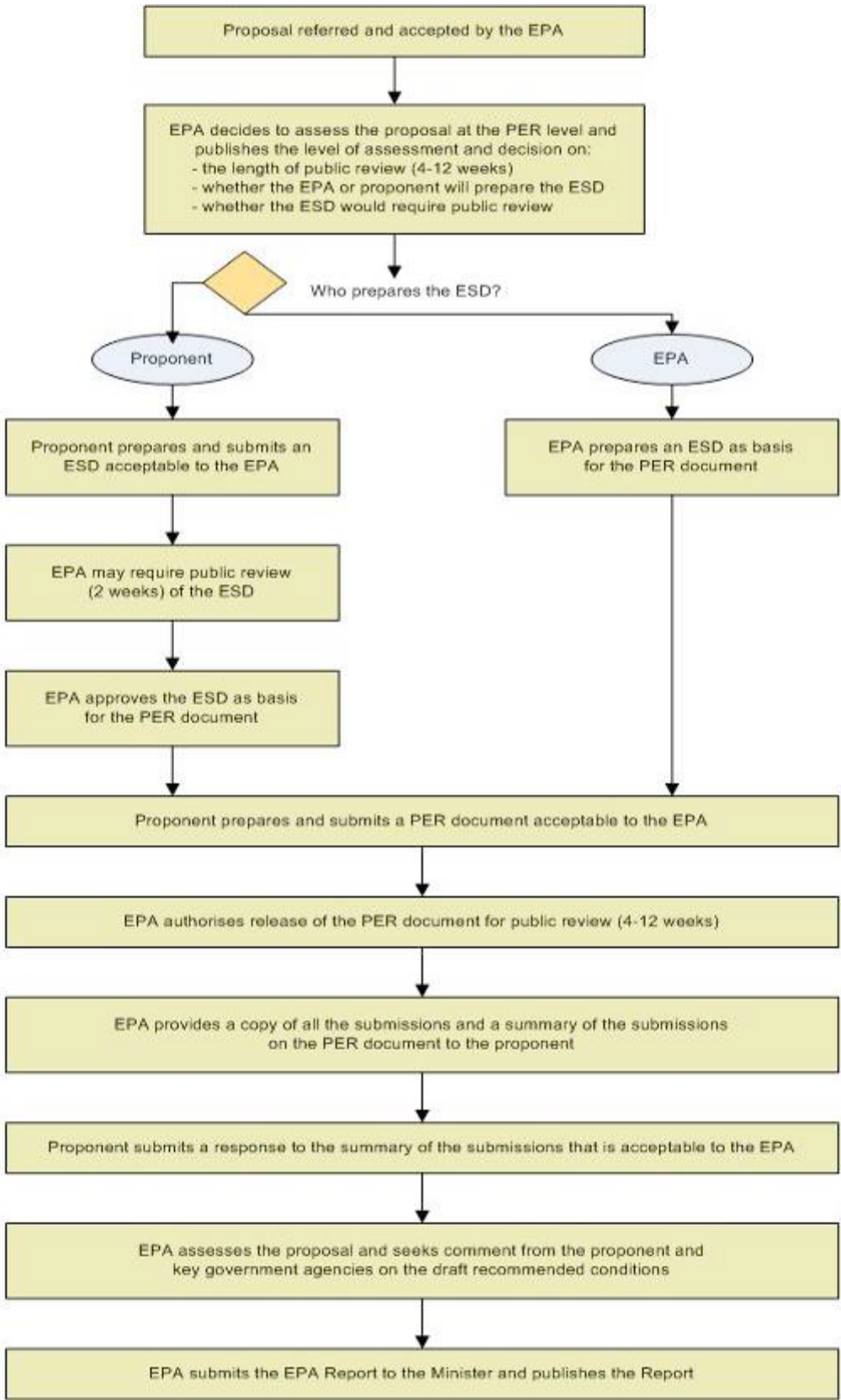
APPENDIX 1. EIA PROCESS DIAGRAM - ASSESSMENT ON PROPONENT INFORMATION

Source: Environmental Protection Authority website



APPENDIX 2. EIA PROCESS DIAGRAM – PUBLIC ENVIRONMENTAL REVIEW

Source: Environmental Protection Authority website



APPENDIX 3

Source: the Department of Environment and Conservation's Threatened Ecological Community Database endorsed by the Minister for the Environment (DEC, sourced April 2012)

| Community identifier | Community name | General location (IBRA regions) |
|---------------------------|---|---------------------------------|
| 2. Toolibin | Perched wetlands of the Wheatbelt region with extensive stands of living Swamp Sheoak (<i>Casuarina obesa</i>) and Paperbark (<i>Melaleuca strobophylla</i>) across the lake floor. | Avon Wheatbelt |
| 3. SCP10b | Shrublands on southern Swan Coastal Plain Ironstones (Busselton area) | Swan Coastal Plain |
| 4. SCP19 | Sedgeland in Holocene dune swales of the southern Swan Coastal Plain | Swan Coastal Plain |
| 5. Clifton-microbialite | Stromatolite like freshwater microbialite community of coastal brackish lakes | Swan Coastal Plain |
| 6. Richmond-microbial | Stromatolite like microbialite community of coastal freshwater lakes | Swan Coastal Plain |
| 7. Mound Springs SCP | Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain) | Swan Coastal Plain |
| 10. Nthiron | Perth to Gingin Ironstone Association | Swan Coastal Plain |
| 11. Muechea Limestone | Shrublands and woodlands on Muechea Limestone | Swan Coastal Plain |
| 14. SCP18 | Shrublands on calcareous silts of the Swan Coastal Plain | Swan Coastal Plain |
| 15. SCP02 | Southern wet shrublands, Swan Coastal Plain | Swan Coastal Plain |
| 16. SCP3a | <i>Eucalyptus calophylla</i> - <i>Kingia australis</i> woodlands on heavy soils, Swan Coastal Plain | Swan Coastal Plain |
| 17. SCP3c | <i>Eucalyptus calophylla</i> - <i>Xanthorrhoea preissii</i> woodlands and shrublands, Swan Coastal Plain | Swan Coastal Plain |
| 18. Thetis-microbialite | Stromatolite community of stratified hypersaline coastal lakes | Geraldton Sandplain |
| 19. Scott Ironstone | Scott River Ironstone Association | Warren |
| 21. SCP15 | Forests and woodlands of deep seasonal wetlands of the Swan Coastal Plain | Swan Coastal Plain |
| 32. SCP07 | Herb rich saline shrublands in clay pans | Swan Coastal Plain |
| 33. SCP08 | Herb rich shrublands in clay pans | Swan Coastal Plain |
| 34. SCP09 | Dense shrublands on clay flats | Swan Coastal Plain |
| 35. SCP10a | Shrublands on dry clay flats | Swan Coastal Plain |
| 38. Morilla swamp | Perched fresh-water wetlands of the northern Wheatbelt dominated by extensive stands of living <i>Eucalyptus camaldulensis</i> (River Red Gum) across the lake floor. | Avon Wheatbelt |
| 40. Bryde | Unwooded freshwater wetlands of the southern Wheatbelt of Western Australia, dominated by <i>Muehlenbeckia horrida</i> subsp. <i>abdlita</i> and <i>Tecticornia verrucosa</i> across the lake floor | Avon Wheatbelt |
| 42. Greenough River Flats | <i>Acacia rostellifera</i> low forest with scattered <i>Eucalyptus camaldulensis</i> on Greenough Alluvial Flats. | Geraldton Sandplain |
| 46. Themeda Grasslands | Themeda grasslands on cracking clays (Hamersley Station, Pilbara). Grassland plains dominated by the perennial Themeda (kangaroo grass) and many annual herbs and grasses. | Pilbara |
| 49. Bentonite Lakes | Herbaceous plant assemblages on Bentonite Lakes | Avon Wheatbelt |

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| 63. Irwin River Clay Flats | Clay flats assemblages of the Irwin River: Sedgelands and grasslands with patches of <i>Eucalyptus loxophleba</i> and scattered <i>E. camaldulensis</i> over <i>Acacia acuminata</i> and <i>A. rostellifera</i> shrubland on brown sand/loam over clay flats of the Irwin River. | Avon Wheatbelt |
| 72. Ferricrete | Ferricrete floristic community (Rocky Springs type) | Geraldton Sandplain |
| 74. Herblands and Bunch Grasslands | Herblands and Bunch Grasslands on gypsum lunette dunes alongside saline playa lakes | Esperance Sandplain |
| 80. Theda Soak | Assemblages of Theda Soak rainforest swamp | North Kimberley |
| 81. Walcott Inlet | Assemblages of Walcott Inlet rainforest swamps | North Kimberley |
| 82. Roe River | Assemblages of Roe River rainforest swamp | North Kimberley |
| 84. Dragon Tree Soak | Assemblages of Dragon Tree Soak organic mound spring | Kimberley Region, Great Sandy Desert Bioregion |
| 85. Bunda Bunda | Assemblages of Bunda Bunda organic mound spring | West Kimberley, Dampierland Bioregion |
| 86. Big Springs | Assemblages of Big Springs organic mound springs | West Kimberley, Dampierland Bioregion |
| 89. North Kimberley mounds | Organic mound spring sedgeland community of the North Kimberley Bioregion | North Kimberley |
| 92. Black Spring | Black Spring organic mound spring community | North Kimberley |
| 95. Mandora Mounds | Assemblages of the organic springs and mound springs of the Mandora Marsh area | West Kimberley, Dampierland and Greats Sandy Desert Bioregions |
| 97. Mound Springs (Three Springs area) | Assemblages of the organic mound springs of the Three Springs area | Avon Wheatbelt |