

Statutory Planning Committee

Notice is hereby given that the next meeting of the Statutory Planning Committee will be held on:

**Tuesday 12 July 2011
10.00 am**

**Level 2, Room 2.4
140 William Street
Perth**



**Tony Evans
Secretary**

Please convey apologies to Christina Sanders on 6551-9053 or email
christina.sanders@planning.wa.gov.au

Statutory Planning Committee

Membership:

Member	Representation – <i>Planning and Development Act 2005</i>	Term of office ends
Mr Gary Prattley	Chairman Section 10(1)(a) or Schedule 2 clause 4 (2)(a)	20/4/2013
Mayor Carol Adams	Local Government nominee Schedule 2 clause 4 (2)(f)	1/2/2012
Mr Ian Holloway	Urban and regional planning representative Schedule 2 clause 4 (2)(e)	1/2/2012
Ms Sue Burrows	Nominee of the Director General, Department of Planning nominee Schedule 2 clause 4 (2)(b)	Ex-officio
Cr Corinne MacRae	WAPC Nominee Schedule 2 clause 4 (2)(g)	1/2/2012
Ms Elizabeth Taylor	Community representative Schedule 2 clause 4 (2)(d)	1/2/2012
Vacant	Regional Minister nominee Schedule 2 clause 4 (2)(c) or Schedule 2 clause 4 (3)	

Quorum: 4

In accordance with the WAPC Standing Orders 2009, 3.7 - Quorum for meetings:

(2) A quorum for a meeting of a committee is at least 50% of the number of offices (whether vacant or not) of members of the committee.

Role:

Schedule 2(4)(4) of the *Planning and Development Act 2005*

The Statutory Planning Committee is the WAPC's regulatory decision-making body and performs such of the statutory planning functions of the Commission under the *Planning and Development Act 2005* and Part II of the *Strata Titles Act 1985* as are delegated to the Statutory Planning Committee under section 16 and such other functions as are delegated to it under that section. These functions include approval of the subdivision of land, approval of leases and licenses, approval of strata schemes, advice to the Minister for Planning on local planning schemes and scheme amendments, and the determination of certain development applications under the Metropolitan Region Scheme.

Delegated Authority

- 2.1 Power to determine applications for approval to commence and carry out development lodged with or referred to the WAPC pursuant to the provisions of a region scheme.
- 2.2 Power to approve detailed plans requiring the subsequent approval of the WAPC as a condition of development approval pursuant to the provisions of a region scheme and power to confirm that conditions imposed by the WAPC on a development approval pursuant to the provisions of a region scheme have been complied with.
- 2.3 Power to determine whether or not proposals and the ongoing implementation of a region scheme comply with conditions (if any) applied pursuant to sections 48F and 48J of the *Environmental Protection Act 1986*.
- 2.4 Power to determine whether or not applications to commence and carry out development are of State or regional importance, or in the public interest, pursuant to any resolution of the WAPC made under a region scheme requiring such determination.
- 2.5 Power to request the Minister for Planning to approve the WAPC disregarding the advice of the Swan River Trust in whole or in part in relation to the approval of development of land within the Riverbank or Development Control Area as defined under the *Swan and Canning Rivers Management Act 2006* where the determining authority is the WAPC.
- 2.6 All functions if the WAPC as set out in -
 - (i) Sections 14(a), 14(c), 34, 97, 98, 100, 104, 105, 106, 107, 109, 110, 111, 134, 135, 136, 138, 139, 140, 142, 143, 144, 145, 147, 151, 153, 154, 157, 169, 185, 214, 215, 216 of the Act;
 - (ii) Town Planning Regulations 1967;
 - (iii) Regulations 21, 22, 24 and 27 of the Planning and Development Regulations 2009;
 - (iv) *Strata Titles Act 1985* or the provisions of a strata or survey-strata scheme;
 - (v) Strata Titles General Regulations 1996;
 - (vi) Section 52 and section 85 of the *Land Administration Act 1997*;
 - (vii) Section 40 of the *Liquor Control Act 1988*;
 - (viii) *Perry Lakes Redevelopment Act 2005*.
- 2.7 Power to determine requests for variations to plans of subdivision where WAPC approval is required pursuant to the provisions of an approved local planning scheme.
- 2.8 Power to provide comment on and grant approval to plans known generally as outline development plans, structure plans and similar plans, and to planning policies and similar documents or amendments thereto, requiring the approval or endorsement of the WAPC pursuant to the provisions of a local planning scheme.
- 2.9 Power to provide comments or advice on behalf of the WAPC to a local government or a redevelopment authority where a provision of a local planning scheme or a redevelopment scheme requires comments from the WAPC.

- 2.10 Power to execute and accept the benefit of easements in gross, covenants in gross, records on title and other instruments for dealings in land for subdivisions, strata subdivisions and developments in accordance with any applicable policy and legislation.
- 2.11 Power to make recommendations to the Minister for Planning in relation to requests from local governments to expend monies paid by subdividing land owners in lieu of setting aside free of cost to the Crown, areas of land for public open space, where such recommendations are in accordance with WAPC policy.
- 2.12 Power to determine whether or not a proposal is likely to have a significant effect on the environment pursuant to section 38(1) of the *Environmental Protection Act 1986* and to refer such proposal to the Environmental Protection Authority.
- 2.13 Power to waive or clear conditions affixed as conditions of approval.
- 2.14 Power to endorse diagrams and plans of survey and deposited plans involving the acquisition and resumption of land created pursuant to Part 11 of the Act and the *Land Administration Act 1997*.
- 2.15 Power to advise the Minister for Planning on any appeal or matter arising therefrom pursuant to Part 14 of the Act.
- 2.16 Power to defend and otherwise deal with applications for review lodged with the State Administrative Tribunal and to appeal, defend, respond and otherwise deal with any matter that may be appealed to the Supreme Court on a question of law.
- 2.17 Power to defend, respond, appeal and otherwise deal with legal proceedings.
- 2.18 Power to prepare and approve, subject to the prior approval of the Minister for Planning, policies relating to planning matters and/or the functions of the WAPC, save and except for State Planning Policies under Part 3 of the Act.

This meeting is not open to members of the public.

RELEVANT INFORMATION FOR MEMBERS

Disclosure of interests

In accordance with the *Planning and Development Act 2005* and Part 6 of the Standing Orders 2009, members of Committees (and certain employees) are required to disclose the following types of interests that they have or persons closely associated to them, have:

- direct and indirect pecuniary interests (financial);
- proximity interests (location); and
- impartiality interests (relationship).

A “**direct pecuniary interest**” means a relevant person’s interest in a matter where it is reasonable to expect that the matter if dealt with by the board or a Committee, or an employee in a particular way, will result in a financial gain, loss, benefit or detriment for the person.

An “**indirect pecuniary interest**” means a relevant person’s interest in a matter where a financial relationship exists between that person and another person who requires a board or Committee decision in relation to the matter.

A “**proximity interest**” means a relevant person’s interest in a matter if the matter concerns -

- (i) a proposed change to a planning scheme affecting land that adjoins the person’s land;
- (ii) a proposed change to the zoning or use of land that adjoins the person’s land; or
- (iii) a proposed development, maintenance or management of the land or of services or facilities on the land that adjoins the person’s land.

An “**Impartiality interest**” means an interest that could, or could reasonably be perceived to, adversely affect the impartiality of the member having the interest and includes an interest arising from kinship, friendship, partnership or membership of an association or an association with any decision making process relating to a matter for discussion before the board or a Committee.

Members disclosing any pecuniary or proximity interests for an item can not participate in discussion or the decision making procedure relating to the item and must leave the meeting room during the discussion of the item. Members disclosing an impartiality interest in an item must also leave the room during the discussion or the decision making procedure relating to the item unless the Committee, by formal resolution, allows the member to remain. The reason to allow a member to remain must be stated in the formal resolution and will be minuted.

Disclosure of representations

Where a member has had verbal communication with or on behalf of a person with an interest in a matter which is before a meeting, the member is to disclose the interest.

Where a member is in receipt of relevant written material (including email) from or on behalf of a person with an interest in a matter which is before a meeting, the member is to table the material at the meeting for the information of members and relevant employees.

ORDER OF BUSINESS

- 1. Declaration of opening**
- 2. Apologies**
- 3. Members on leave of absence and applications for leave of absence**
- 4. Disclosure of interests**
- 5. Declaration of due consideration**
- 6. Deputations and presentations**
- 7. Announcements by the Chairperson of the board and communication from the WAPC**
- 8. Confirmation of minutes of 28 June 2011**
- 9. Reports (see attached index of reports)**
- 10. Confidential items (see attached index of reports)**
- 11. General business**
- 12. Items for consideration at a future meeting**
- 13. Closure - next meeting to be held on 26 July 2011**

Statutory Planning Committee

Minutes
of ordinary meeting 7429
held on Tuesday 28 June 2011

Attendance

Members

Mr Gary Prattley	WAPC Chairman (Presiding Member)
Mayor Carol Adams	Local Government nominee
Mr Ian Holloway	Professional representative
Cr Corinne MacRae	WAPC nominee
Ms Elizabeth Taylor	Community representative

Arr 10.07 am

Officers

Ms Kylie Beach	Department of Planning
Mr Ian Douglass	Senior Planning Officer Schemes and Appeals
	Senior Planning Officer Metro Planning North East

Presenters

Ms Rebecca Hollett – Aurecon
Ms Amy La Spada – Optus
Mr Dat Nguyen Plan - Aurecon

Committee Support

Ms Christina Sanders	Committee Secretary - Department of Planning
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7429.1 Declaration of Opening

The Presiding Member declared the meeting open at 10.04 am, acknowledged the traditional owners and custodians of the land on which the meeting is taking place and welcomed members.

7429.2 Apologies

There were no apologies.

7429.3 Members on Leave of Absence and Applications for Leave of Absence

Ms Burrows has previously submitted an application for a leave of absence for the Statutory Planning Committee meetings scheduled for 28 June, 12 July and 26 July 2011.

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7429.4 Disclosure of Interests

Member/Officer	Minute No.	Page No.	Nature of Interest
Elizabeth Taylor	9.1	3	Proximity

7429.5 Declaration of Due Consideration

No declarations were made.

7429.6 Deputations and Presentations

- 7429.6.1 **Lot 622 (Reserve 27154 Ledger Road, Gooseberry Hill – Optus Telecommunications Infrastructure (Item 9.1))**
Presenters Ms Rebecca Hollett – Aurecon
 Ms Amy La Spada – Optus
 Mr Dat Nguyen Plan - Aurecon

Ms Hollett provided background on the proposed Optus Telecommunications infrastructure.

- 7429.6.2 **Lot 622 (Reserve 27154 Ledger Road, Gooseberry Hill – Optus Telecommunications Infrastructure (Item 9.1))**
Presenter Mr Patrick Bourke, Gooseberry Hill Primary School

Mr Patrick Bourke, Principal Gooseberry Hill Primary School forwarded documentation by email concerning the proposed tower. The documents were tabled for members' consideration.

7429.7 Announcements by the Chairperson of the Board and communication from the WAPC

Nil.

7429.8 Confirmation of Minutes

- 7429.8.1

Minutes of the Statutory Planning Committee meeting held on Tuesday 14 June 2011

Resolved

Moved by Mr Holloway, seconded by Ms Taylor

That the minutes of the Statutory Planning Committee meeting held on Tuesday 14 June 2011, be confirmed as a true and correct record of the proceedings.

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The motion was put and carried.

7429.9 Reports

7429.9.1

Development Application (24-1780-3), Construction of a 30m Monopole to Accommodate 3-Off Panel Antennas Future Turret & Ground Level Equipment Shelter, Lot 622 Ledger Road, Gooseberry Hill
File 24-1780-3
Agenda Part C
Reporting Officer Planning Director - Metropolitan North East

Ms Taylor disclosed an interest; took no part in discussion and did not vote on this item.

Member	Nature of Interest
Ms Taylor	Proximity

Ms Taylor left the meeting at 10.14 am.

Resolved

Moved by Mr Holloway, seconded by Cr MacRae

That the Western Australian Planning Commission resolves to approve development application 24-1780-3 for a 30m monopole to accommodate an antenna, a turret and ground level equipment shelter at Lot 622 Ledger Road, Gooseberry Hill subject to the following conditions and advice:

CONDITIONS:

1. *This approval relates to Drawing No's P8311B-P1 (Rev 02), P8311B-P2 (Rev 02) and P8311B-P3 (Rev 02) prepared by Aurecon and date stamped 18 January 2011 by the Department of Planning (attached).*
2. *Prior to commencement of site works an Environmental Management Plan addressing construction and operational impacts of the development is to be approved by the Shire of Kalamunda on advice from the Department of*

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Environment and Conservation and the Department of Water. Development thereafter must be carried out in accordance with the approved Environmental Management Plan.

3. *No building materials, rubbish or other matter shall be deposited on the adjacent land reserved for Parks and Recreation in the Metropolitan Region Scheme during or after construction of the development.*

ADVICE TO APPLICANT

1. *All development must comply with the provisions of the Health Regulations, Building Code of Australia, Public Building Regulations, and all other relevant Acts, Regulations and Local Laws.*
2. *The Department of Water advises that the proposed development is located within the Middle Helena Catchment public drinking water source area (PDWSA) and is managed for Priority 1 (P1) source protection. P1 source protection areas are defined to ensure there is no degradation of the water resource.*
3. *The Department of Environment and Conservation advises that clearing of native vegetation is prohibited, unless clearing is authorised by a clearing permit obtained from the Department of Environment, or is of a kind that is exempt in accordance with Schedule 6 or Regulation 5 (Clearing of native vegetation Regulations).*

The motion was put and carried.

Ms Taylor returned to the meeting at 10.17 am.

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7429.9.2 WAPC Endorsement of the Point Grey Outline Development Plan

File SPN/0255/1
Agenda Part G
Reporting Officer Planning Manager – Peel Region

Resolved

Moved by Ms Taylor, seconded by Mr Holloway

That the Western Australian Planning Commission resolves to:

1. *approve the Point Grey Outline Development Plan (November 2010) in accordance with Clause 6.8.8 of the Shire of Murray Town Planning Scheme No. 4, subject to the schedule of modifications as attached (Attachment 1 – Schedule of Modifications);*
2. *advise the Shire of Murray of its decision accordingly.*

The motion was put and carried.

7429.9.3

Development Approval for Mineral Sand Mine

Lot 62 Hopeland Road, Lot 59 Westcott Road and Lot 300 Atkins Road, North Dandalup.

File 616-114-2
Agenda Part G
Reporting Officer Planning Manager, Peel Statutory and Strategic Planning

Resolved

Moved by Mr Holloway, seconded by Ms Taylor

That the Western Australian Planning Commission resolves to approve the proposed mineral sand mine on Lots 62 Hopelands Road, 59 Westcott Road and 300 Atkins Road, North Dandalup, subject to the following conditions:

1. *This approval is limited to a period of 10 years from the date of this decision.*

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2. *The site is to be maintained in a neat and tidy condition to the specifications of the local government and to the satisfaction of the Western Australian Planning Commission.*
3. *Vehicles, equipment, and stockpiling shall be located in such a manner as to minimize their visibility from neighbouring residents and public roads to the specifications of the local government and to the satisfaction of the Western Australian Planning Commission.*
4. *An alternative effluent disposal system is to be provided to the specifications of the local government and to the satisfaction of the Western Australian Planning Commission.*
5. *Suitable arrangements being made with the local government for the provision of vehicular crossovers to service the lots containing the proposed development to the specifications of the local government and to the satisfaction of the Western Australian Planning Commission.*
6. *The railway level crossing at Readheads Road being upgraded by the proponent to the specifications of Main Roads Western Australia and to the satisfaction of the Western Australian Planning Commission prior to commencement of mining operations.*
7. *The intersection of Atkins Road and Readheads Road being upgraded by the proponent to the specifications of the local government and to the satisfaction of the Western Australian Planning Commission prior to commencement of mining operations.*
8. *The intersection of Readheads Road and South Western Highway being upgraded by the proponent to the specifications of Main Roads Western Australia and to the*

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satisfaction of the Western Australian Planning Commission prior to commencement of mining operations.

9. A Road Maintenance Plan shall be prepared by the proponent prior to commencement of mining operations to the specifications of the local government and to the satisfaction of the Western Australian Planning Commission and such plan being implemented to the satisfaction of the Western Australian Planning Commission.
10. A Visual Management Plan shall be prepared by the proponent prior to commencement of site works to the specifications of the local government and to the satisfaction of the Western Australian Planning Commission and such plan being implemented to the satisfaction of the Western Australian Planning Commission.
11. A Fire Management Plan shall be prepared by the proponent prior to the commencement of site works to the specifications of the local government and to the satisfaction of the Western Australian Planning Commission and such plan being implemented to the satisfaction of the Western Australian Planning Commission.
12. A Pipeline Protection Plan shall be prepared by the proponent prior to the commencement of site works to the specifications of DBP Transmission and to the satisfaction of the Western Australian Planning Commission and such plan being implemented to the satisfaction of the Western Australian Planning Commission.
13. A Mosquito Management Plan shall be prepared by the proponent prior to the commencement of site works to the specifications of the local government

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and to the satisfaction of the Western Australian Planning Commission and such plan being implemented to the satisfaction of the Western Australian Planning Commission.

ADVICE TO APPLICANT:

Assessment and compliance of the proposed heavy vehicle route with Main Roads Heavy Vehicle Operations will be required prior to the use of the road network for heavy vehicle operations.

Fauna on site are to be relocated in accordance with the provisions of the Wildlife Conservation Act.

The motion was put and carried.

7429.9.4

Adoption of the Wickham South Development Plan

File	SPN/0230/1
Agenda Part	G
Reporting Officer	Planning Officer

Resolved

Moved by Mr Holloway, seconded by Mayor Adams

That the Western Australian Planning Commission resolves to endorse the Wickham South Development Plan subject to the Development Plan being modified to include an annotation regarding the proposed Carse Street extension stating that:

"The construction of Carse Street extension within the Department of Education land will be subject to the approval of the Department of Education."

The motion was put and carried.

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7429.10 Confidential Items

- 7429.10.1 **City of Geraldton-Greenough - Town Planning Scheme No. 3 (Waggrakine Guided Development Scheme) - Request For Repeal.**
File TPS/0531/1
Agenda Part B
Reporting Officer Manager Statutory Planning, Central Regions

THIS ITEM IS CONFIDENTIAL

- 7429.10.2 **City of Fremantle - Local Planning Scheme No. 4 Amendment No. 40 - For Final Approval**
File TPS/0421
Agenda Part B
Reporting Officer Planning Manager, Schemes and Amendments

THIS ITEM IS CONFIDENTIAL

- 7429.10.3 **Shire of Murray - Local Planning Scheme Amendment 258 - For Final Approval**
File TPS 0301/1
Agenda Part E
Reporting Officer Planning Manager

THIS ITEM IS CONFIDENTIAL

- 7429.10.4 **City of Albany - Local Planning Scheme Amendment No. 306 - For Final Approval**
File TPS/0445/1
Agenda Part E
Reporting Officer Planning Manager - Great Southern

THIS ITEM IS CONFIDENTIAL

- 7429.10.5 **City of Albany - Local Planning Scheme Amendment No 304 - For Final Approval**
File TPS/0424/1
Agenda Part E
Reporting Officer Planning Manager Great Southern

THIS ITEM IS CONFIDENTIAL

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7429.10.6	City of Albany - Local Planning Scheme Amendment - For Final Approval
File	TPS/0352/1
Agenda Part	
Reporting Officer	Planning Manager, Great Southern Region

THIS ITEM IS CONFIDENTIAL

7429.10.7	Amendment No. 4 to the Shire of Irwin LPS No. 5 - For Final Approval
File	TPS/0437/1
Agenda Part	E
Reporting Officer	Senior Planning Officer

THIS ITEM IS CONFIDENTIAL

7429.11 General Business

Nil.

7429.12 Items for Consideration at a Future Meeting

Item No	Report	Request	Report by	Required by
7416	Directions 2031	Planning Director – Directions 2031 to brief the Committee after release of WA Tomorrow 2011		July/August 2011

7429.13 Closure

The next ordinary meeting is scheduled for 10.00 am on Tuesday 12 July 2011.

There being no further business before the Committee, the Presiding Member thanked members for their attendance and declared the meeting closed at 10.35 am.

PRESIDING MEMBER

DATE

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B LOCAL PLANNING SCHEMES / AMENDMENTS	
10.1	TOWN OF VINCENT TOWN PLANNING SCHEME NO.1 AMENDMENT NO.29 - FOR CONSENT TO ADVERTISE
G DEVELOPMENTS / SUBDIVISIONAL / SURVEY STRATA	
10.2	143263 LOT 23 CHAPMAN VALLEY RD, MORSEBY - REQUEST FOR RECONSIDERATION
10.3	PROPOSED MIXED USE DEVELOPMENT - LOTS 9582, 9723 AND 10240 (328) STIRLING HIGHWAY, CLAREMONT



ITEM NO: 9.1

DRAFT STRUCTURE PLAN PREPARATION GUIDELINES AND DIGITAL DATA AND MAPPING STANDARDS TOOLKIT

WAPC OR COMMITTEE: **Statutory Planning Committee**

REPORTING AGENCY: Department of Planning
REPORTING OFFICER: Senior Planner
AUTHORISING OFFICER: Director
AGENDA PART: A
FILE NO: DPI/09/00406/3
DATE: 30/06/2011
ATTACHMENT(S):
1. Draft Structure Plan Preparation Guidelines
2. Consultation Paper
3. Draft Structure Plans: Digital Data and Mapping Standards

RECOMMENDATION:

That the West Australian Planning Commission resolves to approve the publication of:

- i) ***The Draft Structure Plan Preparation Guidelines;***
- ii) ***Draft Structure plans: Digital Data and Mapping Standards for a public consultation period of two months***

SUMMARY:

Structure plans are a flexible and useful planning tool, however both government and industry have recognized inconsistencies in their use and assessment. The draft Structure Plan Preparation Guidelines 'Guidelines' and accompanying draft Structure Plans Digital data and mapping Standards Toolkit have been prepared to inform landowners, consultants and local government on the format and level of information required and to provide advice on pre-lodgement consultation.

BACKGROUND:

A discussion paper released in 2009 on the review of the *Town Planning Regulations 1967* and the *Model Scheme Text* identified the need for new provisions and guidance on preparation of structure plans. An audit of the 159 operative local planning schemes within WA revealed a total of 68 structure plan mechanisms with

little consistency amongst the schemes. Some of the key inconsistencies related to nomenclature, terminology, required level of detail and the statutory effect of structure plans.

The Department of Planning ('DoP') with consultant assistance initiated the preparation of the Guidelines, to standardize the form and content of structure plans. To assist in the preparation of the Guidelines, a Project Reference Group made up of representatives from State government, local government, private consultants and the land development industry was established. This was to ensure the provision of expert advice from a broad range of perspectives and the facilitation of stakeholder consultation.

In February 2011, following a comprehensive document review and an assessment of the key issues, the Guidelines were presented at three separate workshops with stakeholders to initiate discussion and seek resolutions to remaining issues. This feedback and other submissions facilitated through Project Reference Group were collated and incorporated into a revision of the Guidelines (Attachment 1).

To accompany the Guidelines, DoP prepared a draft Structure Plans: Digital and Mapping Standards (Attachment 3), to facilitate and guide the standardisation of digital documents and spatial data to ensure consistency, interoperability, accountability and manageability of digital data.

LEGISLATION / STRATEGIC PLAN / POLICY:

Legislation	<i>Planning and Development Act 2005</i>
Section:	Part 5 Local planning schemes

Strategic Plan

Strategic Goal:	Regulation.
Outcomes:	Effective, consistent and enforceable regulation
Strategies:	Improve, streamline and simplify regulatory processes within a risk based framework
	Develop agreed standards aligned to national standards and legislation

Policy

Number and / or Name: Liveable Neighbourhoods, 2007 (Guide pages 10, 11, 13, 14, 15 and Appendix 1)
Guidelines for the Preparation of Local Structure Plans for Urban Release Areas, June 1992

DETAILS:

The Guidelines will support provisions to be included in the proposed General Scheme Provision Regulations ('GSP') Regulations' and will replace the current structure planning provisions within *Liveable Neighbourhoods*, 2007 (Guide pages

10, 11, 13, 14, 15 and Appendix 1) and the *Guidelines for the Preparation of Local Structure Plans for Urban Release Areas, June 1992*.

The Guidelines provide guidance on the following matters:

1. Ensure information provided within structure plans is appropriate to the scale and level of the plan;
2. Provide clarity as to the type of information that is generally not to be included in structure plans;
3. Establish consistency in the format and content of structure plans throughout the state;
4. Provide clarity and consistency on statutory and non-statutory elements of structure plans;
5. Provide clear guidance to applicants, local government and the WAPC on the preparation of structure plans; and

Assist decision making authorities in assessing whether a structure plan has provided the required information.

The Draft Guidelines do not deal with the approval process for structure plans, these will be addressed by the GSP Regulations which are currently being prepared. The GSP Regulations will set out when a structure plan is required and will provide a uniform approval process throughout the State to reduce the complexity of the structure plan approval process and the need for multiple assessments of the same document.

GOVERNMENT AND CORPORATE IMPLICATIONS:

The proposed draft Structure Plan Preparation Guidelines and draft Structure Plans: Digital Data and Mapping Standards Toolkit will provide consistent structure planning throughout the State and support the provisions of the proposed GSP regulations.

CONSULTATION:

The draft Guidelines have been subject to extensive internal and external consultation facilitated by the Project Reference Group and the feedback received from government and industry workshops. It is recommended that the draft Guidelines be open for a two month public comment period and any relevant feedback received incorporated into a revision. Following public consultation a final draft will be presented to SPC with a recommendation to endorse. A consultation paper has been prepared to accompany the two documents to outline the rationale for their development (Attachment 2).

OFFICER'S COMMENTS:

Further refinement of the Guidelines may be required following gazettal of the GSP Regulations. However, the need for a more consistent approach to the preparation of structure plans that reflects current planning policy has necessitated the release of the Guidelines in advance to the completion of the GSP Regulations.

Draft structure plan – preparation guidelines

June 2011

DRAFT

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1. Structure plans

1.1 Definition

A structure plan is a document (incorporating reports and plans) that nominates land use arrangements, transport networks, open space systems, utility networks, urban water management land requirements and development standards over an area of land. For the purpose of these draft Guidelines, the term 'structure plan' replaces all other terms used throughout the planning industry for similar documents, including outline development plans and subdivision guide plans.

A detailed area plan is not a structure plan.

1.2 When and where

Structure plans are an appropriate planning instrument in new development or greenfield areas and in many infill and redevelopment areas (brownfield areas). Structure plans are used within urban environments, rural environments and in semi-rural or peri-urban environments.

The General Provisions for Local Planning Schemes Regulations (Regulations) are being prepared, and will outline the circumstances under which a structure plan is required.

1.3 Purpose

A structure plan provides a guiding framework for subdivision and development. It serves to coordinate the provision of land use, community facilities (such as schools, parks and roads), services and infrastructure. Structure plans are particularly important in areas that have fragmented or multiple ownership.

1.4 Statutory and strategic

Structure plans can be statutory or strategic.

Statutory structure plans are those required to be prepared and approved under a local planning scheme for land within a 'development' (or similar) zone. A statutory structure plan will apply land use zones and residential densities to the land and will have statutory effect.

Strategic structure plans are prepared over land that is either not yet zoned for more intense development or requires a guiding framework to ensure coordination in subsequent layers of more detailed planning and development is achieved. Strategic structure plans are prepared based on a general heads of power included within a local planning scheme.

Structure plans often accompany documents submitted with a proposed metropolitan region or local planning scheme amendment to illustrate development intention for a parcel of land. However, unless the amendment specifically provides for or refers to them (i.e. they form part of the amendment), they are explanatory only and are not approved as part of the amendment.

1.5 Hierarchy

There are four types of structure plans, each reflecting the context and scale of the proposal and planning issues relevant to that stage of planning and design, and to the decision being made (refer section 3):

1. sub-regional structure plans
2. district structure plans
3. local structure plans
4. activity centre structure plans.

2. Introduction to the Guidelines

2.1 Background

Both government and industry have recognised that over time, the use and assessment of structure plans has become ad hoc and inconsistent and there is a need for more guidance and consistency in relation to the preparation and assessment of structure plans. The review of the *Town Planning Regulations 1967* and the *Model Scheme Text* by the Department of Planning (as part of the State Government's commitment to streamlining the planning approval process and providing consistency in planning requirements across the State), highlighted the need for consistency across the State with regard to structure plans.

It is in response to this that these draft Guidelines have been prepared to standardise the format and content of structure plans. The draft Guidelines will replace the Western Australian Planning Commission's (WAPC) current structure planning provisions within *Liveable Neighbourhoods, 2007* (Guide pages 10, 11, 13, 14, 15 and Appendix 1) and the *Guidelines for the Preparation of Local Structure Plans for Urban Release Areas*, June 1992.

The draft Guidelines do not deal with the approval process for structure plans. The General Provisions for Local Planning Schemes Regulations are being prepared to address the identified need for more guidance and consistency in relation to the approval process and modification process for structure plans. The Regulations will reduce the complexity of the structure plan approval process and the need for multiple assessments of the same document. It will set out when a structure plan is required and will provide a uniform approval process throughout the State. The Regulations will apply to all local planning schemes in the State. The draft Guidelines may need to be reviewed and updated following gazettal of the Regulations.

2.2 Objectives

The objective of the draft Guidelines is to reduce and standardise terminology and hierarchy of structure plans and provide assistance and guidance on the format and content of structure plans. These draft Guidelines are intended to:

1. ensure information provided within structure plans is appropriate to the scale and level of the plan;
2. provide clarity as to the type of information generally not included in structure plans;
3. establish consistency in the format and content of structure plans for the State;
4. provide clarity and consistency on statutory and non-statutory elements of structure plans;
5. provide clear guidance to applicants, local government and the WAPC on the preparation of structure plans; and
6. assist decision-making authorities in assessing whether a structure plan has provided the required information.

2.3 Application

The draft Guidelines will apply to all levels of structure plans and set out the scope, purpose and content of each level of structure plan. For sub-regional structure plans, the draft Guidelines focus only on definition and function rather than providing guidance on format and content. More detailed guidance is provided on the format and content for district and local structure plans. With regard to activity centre structure plans, the draft Guidelines make direct reference to State Planning Policy 4.2 for guidance on the information required within an activity centre structure plan.

The draft Guidelines should be read in conjunction with the Commission's *Draft Structure Plan – Digital Data and Mapping Standards* which sets out standards and guidelines for the submission of digital documents and spatial data.

2.4 Users

These draft Guidelines are intended for use by landowners, a landowner's representative or a local government responsible for the preparation of a district, local or activity centre structure plan. They are also intended for use by decision-making authorities during the structure plan assessment process. The draft Guidelines will inform the level of structure plan, provide guidance on the format and information required within the structure plan and advise on pre-lodgement consultation.

The draft Guidelines also advise on what constitutes a 'minor' or 'major' modification to an approved structure plan.

2.5 Urban design policies and other requirements

The draft Guidelines are not an urban design policy and do not address issues relevant to urban design or guide the design of a structure plan. Applicants should refer to the relevant WAPC and local government policies, including *Liveable Neighbourhoods*, for all policy requirements relevant to urban design.

Similarly, the draft Guidelines do not reference or link the reader to other legislation, standards, documents, requirements or policies that may be relevant in the preparation of a structure plan or a technical appendix to support the structure plan. Key policies have been referred to in the draft Guidelines – however, applicants need to ensure that all other relevant policies, requirements, standards and document of the WAPC, other state agencies and local governments are also addressed as necessary by the structure plan.

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3. Description of structure plans

3.1 Sub-regional structure plans

Sub-regional structure plans are prepared in the context of regional strategies such as *Directions 2031 and Beyond* (2010), or the *Geraldton Region Plan* (1999) and/or sub-regional strategies such as the *Outer Metropolitan Perth and Peel Sub-Regional Strategy* (2010). These strategies set out the principles and matters that need to be addressed in more detailed planning levels called structure plans.

Sub-regional structure plans are the highest level of structure plan and provide a broad land use and transport spatial framework for future development of a sub-region. They are generally prepared by the WAPC in conjunction with local government and relevant government agencies.

Sub-regional structure plans are strategic documents prepared in the interest of orderly and proper planning where it is necessary to guide and coordinate development at a regional scale over numerous land holdings and often more than one local government area. A key purpose of sub-regional structure plans is to coordinate major infrastructure provision from a governmental perspective.

These structure plans address regional issues and apply regional scale land uses and reserve classifications in accordance with, where applicable, relevant region scheme land use zones and reserves (including urban, industrial, strategic metropolitan centres and major commercial areas, regional open space (parks and recreation reserves) and environmental assets, regional roads, regional water management requirements, railway networks, public purpose sites, and special control areas for buffers and environmental assets).

Sub-regional structure plans are strategic and broad-brush in nature and identify the requirements for future more detailed levels of planning, including any studies and investigations at subsequent levels of planning. These structure plans are usually the precursor to the rezoning and reservation of land under the region scheme (where applicable), or a local planning scheme. They facilitate and provide a context for the preparation of more detailed district and local structure plans.

Another key purpose of sub-regional structure plans is to coordinate major infrastructure provision from a governmental perspective, including location and land requirements, and principles of funding, staging and implementation.

These Guidelines do not provide guidance on the format or information and plan requirements of sub-regional structure plans. The WAPC does however follow a rigorous process to prepare and endorse sub-regional structure plans.

3.2 District structure plans

District structure plans are district level land use plans that provide more detailed information on and resolutions to outstanding regional and district land use and planning issues over a large area (one local government area, several suburbs and/or areas generally greater than 300 hectares). They may be prepared by local government, landowners, landowner representatives or the WAPC if they are of strategic interest.

District structure plans are strategic documents that provide guidance regarding land use, employment, density targets and coordination of roads and community infrastructure. This may include the location of high schools, district water management requirements, road networks, refinement of regional land use boundaries, coordination of regional and district infrastructure provision, location and distribution of regional or district open space and activity centres. They allow for the coordination of infrastructure and the provision of an appropriate movement network. District structure plans show an arrangement of land uses which require further refinement (following more detailed investigations and design) and provide the general basis for subsequent preparation of local structure plans.

3.3 Local structure plans

Local structure plans focus on the neighbourhood scale and provide a comprehensive land use framework for subdivision and development applications. Local structure plans will show all land uses (as per the zones in the local planning scheme), residential density(s) coding ranges and the neighbourhood street network. They can be prepared by local government, a landowner or landowner representative.

Local structure plans are statutory documents prepared and approved under the provisions of a local planning scheme¹.

3.4 Activity centre structure plans

Activity centre structure plans are statutory documents required by *State Planning Policy 4.2 – Activity Centres for Perth and Peel* for strategic metropolitan centres, secondary centres, district and specialised centres (refer to activity centre hierarchy Table 2 of State Planning Policy (SPP) 4.2). They can be prepared by local government, a landowner or landowner representative.

An activity centre structure plan shows an outline of the overall development (including built form) intentions and the coordination, integration and mix of uses of the activity centre. It sets out detailed land uses and infrastructure, urban design, residential density, access and built form to inform the development or redevelopment of the centre.

Activity centre structure plans must be consistent with SPP 4.2, Model Centre Framework (Appendix 2 of SPP 4.2), *Liveable Neighbourhoods*, the Residential Design Codes and the relevant council's local planning strategy.

3.5 Combined structure plans

It is recognised that not all layers of structure plans are applicable or necessary for all situations. Some situations will require all layers of structure planning to be undertaken separately and sequentially to ensure orderly and proper planning, whilst other situations warrant only one structure plan to be completed prior to subdivision and development. In such instances, layers of structure plans could be merged into one structure plan, if it is more appropriate and practical to address all information requirements through one structure plan.

A combined district and local structure plan (where the information requirements of a district and local structure plan are provided in one structure plan) are generally appropriate in the following instances:

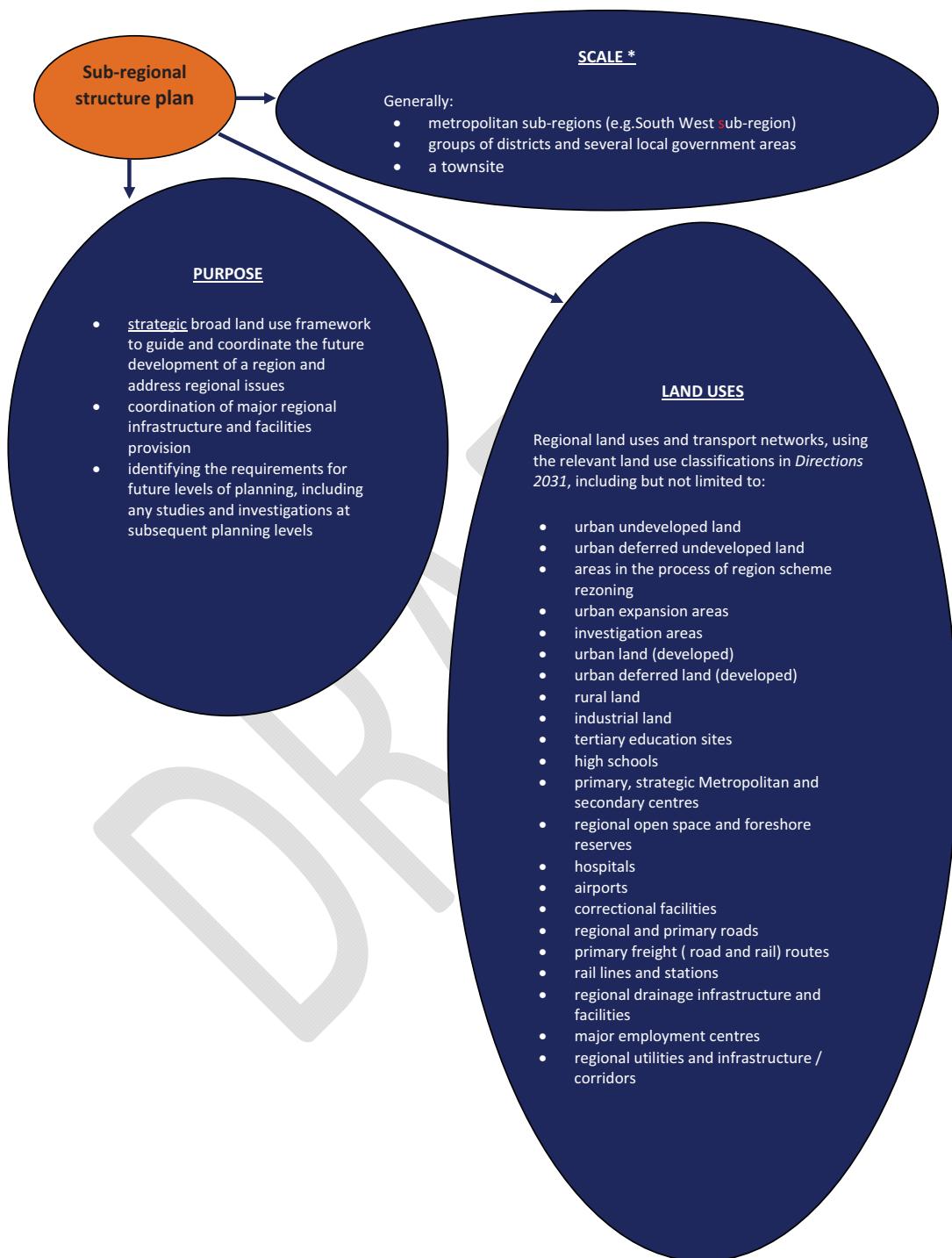
- a greenfield site in single or limited ownership;
- several large and cooperatively planned holdings; or
- rural areas.

In areas of small and fragmented ownership, combining the district and local structure planning processes is generally not appropriate, as the coordination of the provision of infrastructure and developer contributions is likely to require sequential layers of structure planning.

The following diagrams summarise the general scale, purpose and land uses relevant to each layer of structure plan.

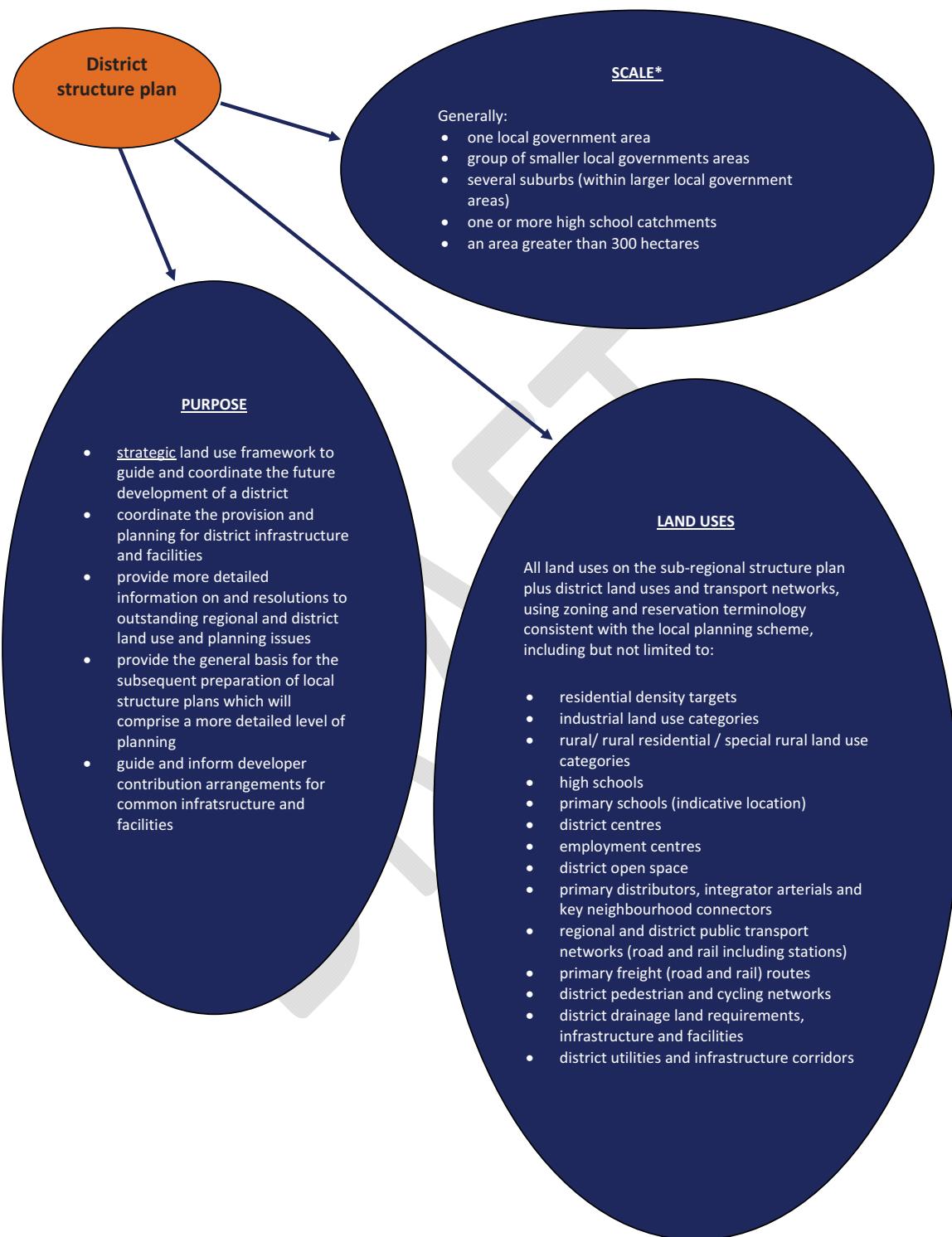
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¹ The structure plan approval process, to be included within all local planning schemes throughout the State, will be outlined by the General Provisions for Local Planning Schemes Regulations which are being prepared.



*Note regarding scale:

The reference to scale is not intended to be a rigid and prescriptive definition of the minimum and maximum area over which a structure plan can apply. Rather, the scale of a structure plan is described to provide a guide as to what the structure plans are intended for. This does not preclude the preparation of a structure plan in a circumstance which falls outside the scale described below.



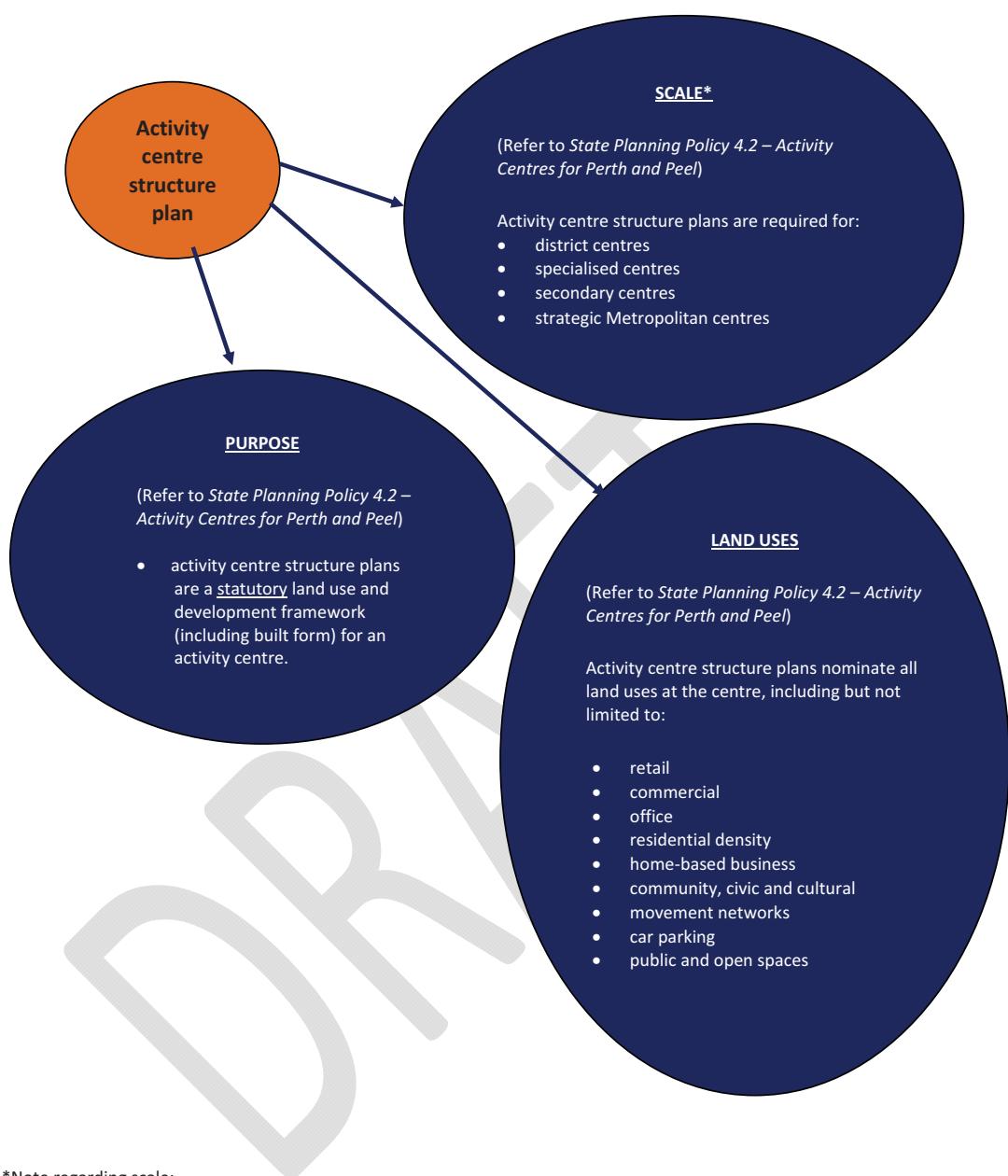
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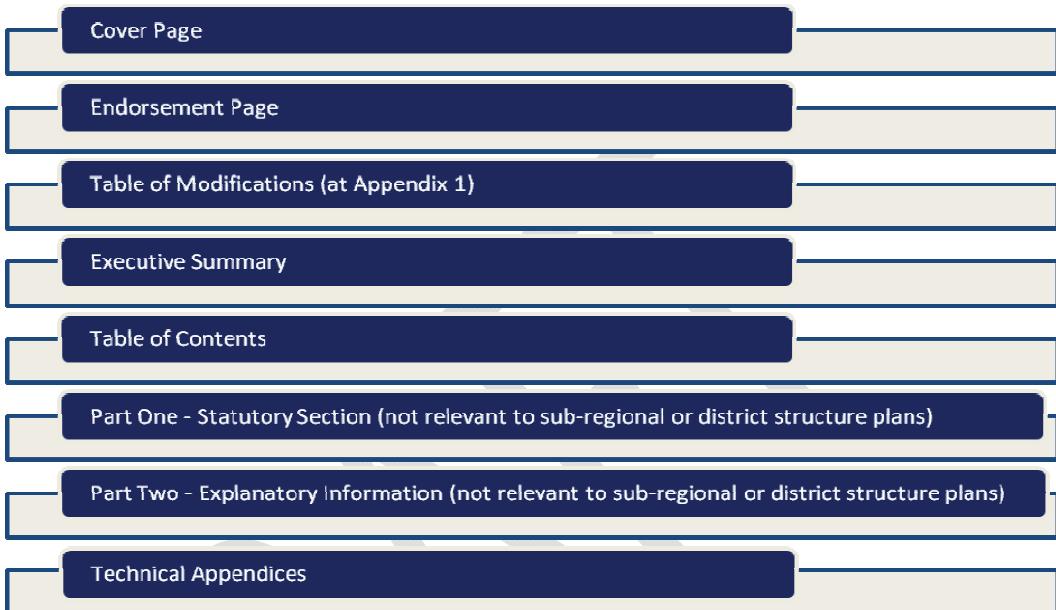
*Note regarding scale:

The reference to scale is not intended to be a rigid and prescriptive definition of the minimum and maximum area over which a structure plan can apply. Rather, the scale of a structure plan is described to provide a guide as to what the structure plans are intended for. This does not preclude the preparation of a structure plan in a circumstance which falls outside the scale described below.

4. Format of structure plans

A structure plan should comprise a structure plan report, plans and maps with technical investigations and studies provided as appendices. The complete structure plan document (report, map and technical appendices) should be lodged in a hard copy and digital format.

A structure plan should generally consist of the following sections:



Sub-regional and district structure plans are strategic documents – and as such, do not have a statutory component, except in very specific circumstances. They generally consist of one part referred to as ‘Sub-Regional’ or ‘District’ structure plan report.

5. Information and plans required in a structure plan

5.1 General

Planning requirements vary widely from one area to another. The list of information requirements outlined in the following sections for district, local and activity centre structure plans is provided as a guide to be applied as appropriate and relevant to the particular site and circumstances. The information requirements listed in these draft Guidelines are a guide only. Some information may not be relevant to an individual structure plan, or additional information may be necessary for an individual structure plan.

Structure plans are intended to be comprehensive, providing an appropriate level of information relevant to the individual site and the level of planning being undertaken. They are to facilitate the refinement of design over time. Structure plans should contain the level of detail appropriate to their hierarchy, and should not pre-empt or pre-determine subdivision design.

It is important to note that information required for district and local structure plans often overlaps and may be duplicated within each structure plan. This is necessary to ensure that district and local structure plans can be viewed as stand alone documents. However, it is acceptable to avoid textual repetition of an approved district structure plan by making reference to it where appropriate.

The following is a list of items that are generally not included in Part One (statutory component) of a structure plan:

1. lot layout, lot levels, road reserve widths or carriageway design, street trees, on street parking or public open space design;
2. legal agreements that require some form of ‘betterment’, action or payment on behalf of the applicant as a condition of initiating the structure plan;
3. information that has been identified by these draft Guidelines as appropriate only at future stages of planning (a lower order structure plan or a subdivision plan);
4. marketing information or material including vision statements or replication of the content of existing policies.

They are intended primarily for new urban release areas in metropolitan and regional growth areas. However, general concepts and approach set out in the draft Guidelines in relation to format and content of a structure plan are adaptable to other situations and circumstances, particularly in peri-urban, semi-rural and industrial areas.

5.2 Executive summary

The executive summary should be a page long and state:

- the location of the structure plan area;
- land uses proposed by the structure plan; and
- relationship to the local planning scheme (where appropriate).

The executive summary should state whether the structure plan overlaps, supersedes or consolidates some other structure plan (at the same level), and refer to the structure plan by name.

For clarity and ease of analysis, a summary table of all key statistics and outcomes of the structure plan should be included in the executive summary as illustrated in Table 1. The main purpose for the summary table is to provide a quick reference point to convey the nature and key outcomes of the structure plan and also to facilitate efficient capture of digital information. The summary table should be modified if any of the items listed below are irrelevant to an individual structure plan.

Table 1: Structure plan summary table

Item	
Total area covered by the structure plan:	_____ hectares
Area of specific land uses:	
List of land uses proposed by structure plan	_____ hectares
Estimated Lot Yield:	_____ lots
Estimated number of dwellings:	_____ dwellings
Estimated population:	_____ people
Number of high schools:	_____ high schools
Number of primary schools:	_____ primary schools
Estimated retail floor space (if appropriate):	_____ square metres
Estimated employment provided (no. of jobs):	_____ jobs
Number and area of public open space – : district open space	_____ hectares
: neighbourhood parks	_____ hectares

5.3 Table of contents

Structure plans should include a table of contents. Suggested headings, sub-headings and information provision under each heading are listed in sections 6 and 7 of these draft Guidelines.

5.4 Table of modifications

The structure plan report, map, and technical appendices should be referenced by locality name, date and reference number for identification purposes. The lodged structure plan should be referenced as 'Revision 0'.

To avoid confusion with subsequent versions of the structure plan, new revisions of the document and/or map should be clearly referenced, listed and described in the table of modifications. Each modified version should be referenced as 'Revision 1', 'Revision 2', and so on.

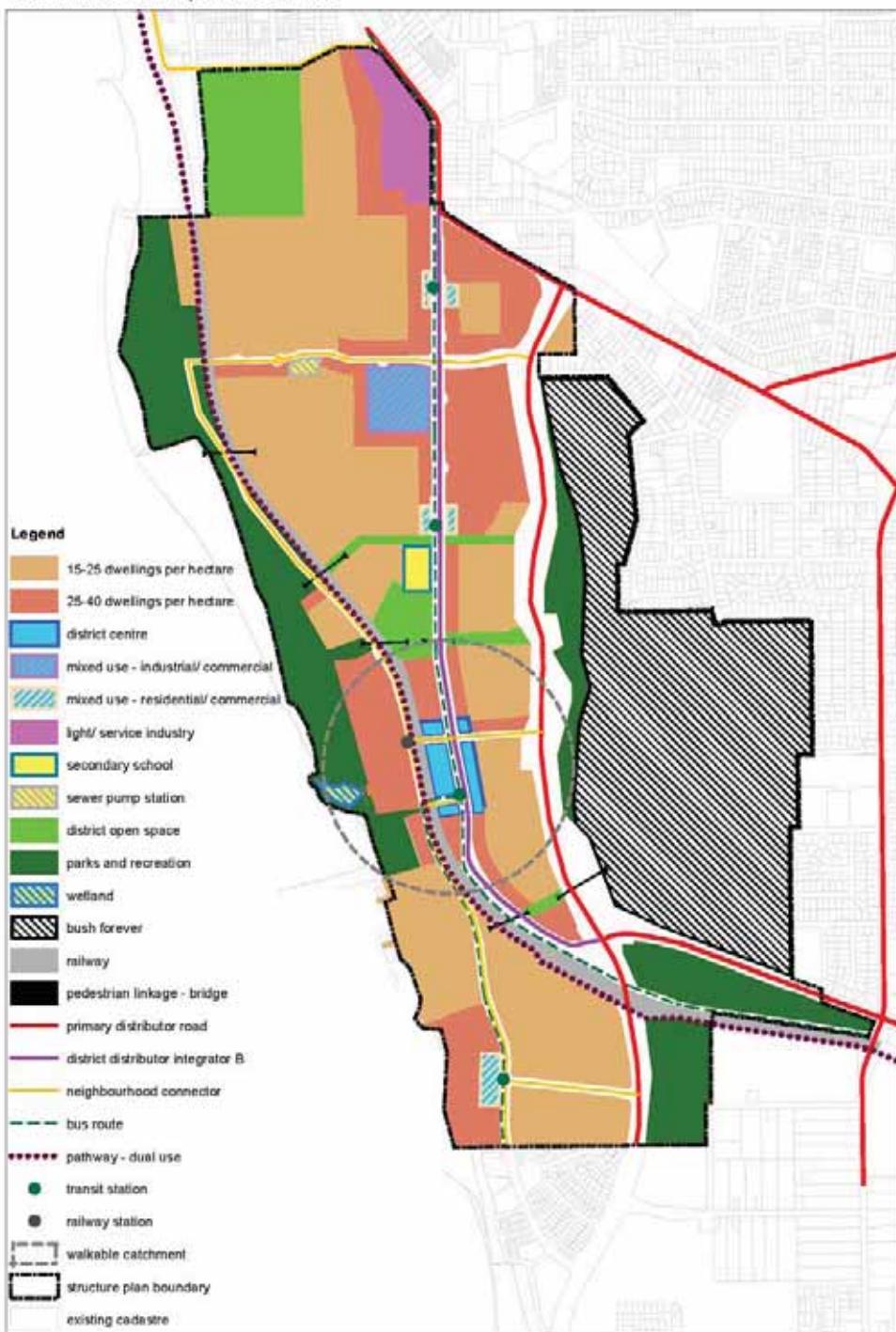
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6. District structure plans

6.1 District structure plan map

The district structure plan map should show:

- the area covered by the district structure plan
- residential land and residential density targets
- industrial land
- rural / rural residential land
- tertiary and secondary education institutions
- primary schools (indicative location only)
- hospitals
- activity centres – district and higher order centres only – and catchment area as per SPP 4.2
- employment nodes
- regional open space
- district open space
- road network – primary distributors, integrator arterials and key neighbourhood connectors
- rail network and facilities (passenger and freight)
- primary freight routes
- district public transport networks including park and ride facilities
- district utilities and infrastructure sites and corridors (including land required for water management)
- district pedestrian and cyclist networks
- important beaches and water bodies
- other major land uses as appropriate.



Example of District Structure Plan

6.2 District structure plan report

A district structure plan is a strategic document and as such does not have a statutory component, except in very specific circumstances. A district structure plan report does not have a Part One statutory section. The report should provide the:

1. Planning background

1.1 Introduction and purpose

1.2 Land description

1.2.1 Location

- Describe the location of the structure plan site.
- Include a location plan showing where the structure plan site is in relation to the region.

1.2.2 Area and land use

- State the area covered by the structure plan (in hectares) and the current land use(s).

1.2.3 Legal description and ownership

- Provide certificate of title details and identify owners of the site. In multiple ownership situations, certificate of title and ownership details shall be provided in table format.

1.3 Planning framework

1.3.1 Zoning and reservations

- Identify the current zoning of the site and land reservations (region scheme and local planning scheme).
- Identify any improvement plans.

1.3.2 Regional and sub-regional structure plan

- Provide a brief statement of compliance or variation with the relevant regional or sub-regional structure plan.

1.3.3 Policies

- List all relevant government policies and strategies and provide a brief statement of compliance or variation. Do not summarise or repeat policy requirements.
- Justify any policy variation.

1.3.4 Other approvals and decisions

- Provide a list of relevant approvals and decisions, including scheme amendments and other planning and environmental conditions attached to projects, schemes or amendments.

2. Site conditions and environment

2.1 Environmental assets and constraints

- Identify the vegetation present within the site (type and quality).
- Identify environmental assets (including flora, 'Bush Forever' policies, Threatened Ecological Communities, vegetation, fauna, fauna habitat, wetlands and rivers) and constraints on the site and on adjoining land.
- Include an aerial photograph showing the location and extent of environmental assets.
- Include a structure plan overlay showing the proposed structure plan over the environmental assets plan.
- Discuss how the identified environmental assets have been addressed by the structure plan.
- Include an environmental assessment and management strategy prepared by a qualified environmental consultant, and include the document as a technical appendix.

2.2 Landform and soils

- Identify the soil types and confirm they do not inhibit the proposed development. Do not describe soil types.
- Provide any other relevant geotechnical information.
- Describe the landform and identify any major topographic features.

2.3 Groundwater and surface water

- Describe groundwater and surface water conditions of the site and adjoining land.
- Identify any major hydro-geological conditions and groundwater protection areas of the site and adjoining land.
- Identify wetlands and waterways including associated floodways, buffers and reserves of the site and adjoining land.
- Discuss how any water issues are to be addressed.

2.4 Bushfire hazard

- If relevant, address bush fire hazard risk or assessment and emergency access assessment in accordance with the Commission's 'Planning for Bushfire Protection' policy (May 2010).

2.5 Heritage

- Identify and address any Aboriginal or European cultural or heritage features and show the location and extent on an aerial photograph.

2.6 Coast

- If relevant, identify any coastal processes, foreshore reserves and setbacks.

2.7 Context and constraints analysis

This section should include a context and constraints plan highlighting surrounding land use, impacts, and where appropriate, indicate how the structure plan is to be integrated into the surrounding area. The following should be considered:

- existing and future transport routes;
- major services and infrastructure, including drainage channels and infrastructure;
- existing and planned activity centres and employment nodes;
- regional and district open space and community infrastructure;
- any existing land use buffers affecting the site; and
- other adjacent uses and impacts such as aircraft noise, transport noise, quarries, presence of unexploded ordnances, kennel areas, mosquitoes, market gardens, poultry farms, industrial activities, powerline corridors, gas pipelines, transit corridors, utility corridors, contaminated sites, fire hazards, floodways and telecommunications infrastructure.

3. District structure plan

3.1 Land use

- Provide a brief explanation and justification of proposed land uses and integration with surrounding land uses.
- Include the structure plan summary table here.
- Include the district structure plan map here.

3.2 Residential

- Describe and justify residential density targets.
- Outline compliance with any residential density targets that have been set by higher level plans and strategies such as a sub-regional structure plan.

3.3 Movement networks

- Describe the road network and assess its capacity for peak demand.
- Briefly describe existing road networks and justify proposed road networks (integrator arterials and key

neighbourhood connectors).

- Provide estimates of traffic volumes on proposed key neighbourhood connectors and arterials.
- Describe intersection type and control on arterials and neighbourhood connectors.
- Provide indicative road cross-sections, showing carriageway, median and verge widths.
- Identify any regional and district traffic management issues and discuss the resolution of these issues
- Briefly describe and justify the proposed regional and district public transport network, including any proposed railway stations, park and ride facilities, and how access will be achieved .
- Briefly describe and justify the proposed regional and district pedestrian and cyclist (including commuter cyclist) networks.
- Identify the location and approximate size of major car parking facilities and describe what type of user each facility is for (e.g. public transport users, park and ride commuters, and short stay visitors).
- Include a movement networks plan showing estimated traffic volumes, areas requiring traffic management solutions, public transport networks and pedestrian and cyclist networks.
- To support this section, a transport and traffic management strategy (transport impact assessment) should be prepared by a qualified transport consultant and included as a technical appendix.
- The Refer to WAPC's *Transport Assessment Guidelines for Development* when preparing a district structure plan.

3.4 Open space

- Include an open space plan indicating the location and size of proposed regional and district open spaces and highlight open spaces that will have a significant conservation and/or water management function.
- Describe and justify the size, distribution and function(s) of proposed regional and district open spaces in accordance with Liveable Neighbourhoods, including identification of those open spaces that will have a shared use with schools or area co-located with a school, and those open spaces that will serve a significant water management function with regard to area of land required.
- Discuss management arrangements and responsibilities for the proposed open spaces.

3.5 Water management

- Provide a concise summary of the district water management strategy.
- The district water management strategy should be prepared by a qualified consultant and included as a technical appendix. The level of detail provided by the strategy should be appropriate to a district level of planning.
- The district water management strategy is to be prepared in accordance with *Better Urban Water Management* (WAPC, 2008).
- Identify the proposed water management network and associated infrastructure requirements.

3.6 Education facilities

- Describe and justify the catchments, size and distribution of proposed tertiary and government and non-governmental secondary education facilities.
- Describe and justify the indicated location and distribution of primary schools.

3.7 Activity centres and employment

- Describe and justify proposed activity centres in the structure plan area, in accordance with SPP 4.2 – *Activity Centres for Perth and Peel*.
- For each activity centre proposed, provide an indication of land use and an estimate of retail floor space.
- If appropriate, provide an activity centre plan indicating the location and distribution of lower order (below district level) activity centres.
- Briefly describe and justify the indicated location and distribution of lower order activity centres.
- Describe the provision of employment and employment targets.
- To support this section, an economic, retail and employment strategy and community services and facilities strategy should be prepared by a qualified consultant and included in the technical appendix.

3.8 Infrastructure coordination, servicing and staging

- If applicable, provide a list of common or shared regional and district community infrastructure and service items necessary for the implementation of the structure plan and/or prerequisites for subsequent planning stages.
- Discuss how the provision of common or shared regional and district infrastructure and service items is to be implemented.
- Discuss the likely staging of the provision of common regional and district infrastructure and service items.
- Describe the infrastructure and service provision to the structure plan area.
- Discuss the staging of the development proposed by the structure plan.
- An infrastructure and servicing strategy should be prepared by a qualified engineering consultant and included as a technical appendix to support this section. The level of detail provided by the strategy should be appropriate to a district level of planning.

3.9 Developer contribution arrangements

- If relevant, make reference to a developer contribution plan to be prepared, outlining the developer contributions

<p>required for the provision of standard and community infrastructure in the structure plan area.</p> <ul style="list-style-type: none"> • A separate development contribution plan may be prepared pursuant to SPP 3.6 – <i>Developer Contributions for Infrastructure</i>.
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4. Implementation

- Outline the tasks requiring completion to progress to the next planning stage.
- Nominate local structure planning precincts.

The following list outlines plans that should generally be provided within a district structure plan. Not all plans may be necessary or relevant to an individual structure plan. In some cases, additional plans may be necessary to allow for proper assessment of the structure plan.

Plans to be included within a district structure plan

1. Location plan
2. Aerial photograph
3. Structure plan overlay
4. Context and constraints plan
5. District structure plan map
6. Movement networks plan
7. Open space plan
8. Activity centres plan

The following list outlines the technical appendices that should generally be provided to support a district structure plan. Not all appendices may be necessary or relevant to an individual structure plan. In some cases, additional appendices may be necessary to allow for proper assessment of the structure plan.

Appendices

1. Environmental assessment and management strategy
2. Traffic and transport management strategy in accordance with WAPC *Transport Assessment Guidelines for Development*
3. District water management strategy
4. Economic, retail and employment strategy
5. Community services and facilities strategy
6. Infrastructure and servicing strategy

7. Local structure plans and activity centre structure plans

7.1 Part One – statutory section

Part One is relevant only to local structure plans and activity centre structure plans, as such plans have statutory content.

Part One should contain all information required to have statutory effect. It should include the structure plan map and all the standards, requirements and prerequisites for subdivision and development within the structure plan area. The local structure plan and activity centre structure plan should use terminology consistent with the local planning scheme.

Part One should not include any explanations, discussions, descriptions, supportive information, design principles and development visions. If objectives are included, they should be relevant, concise, clear and appropriate to the level of planning and design being undertaken. It is important to minimise potential for variations in interpretation of objectives by different parties.

7.1.1 Structure plan map

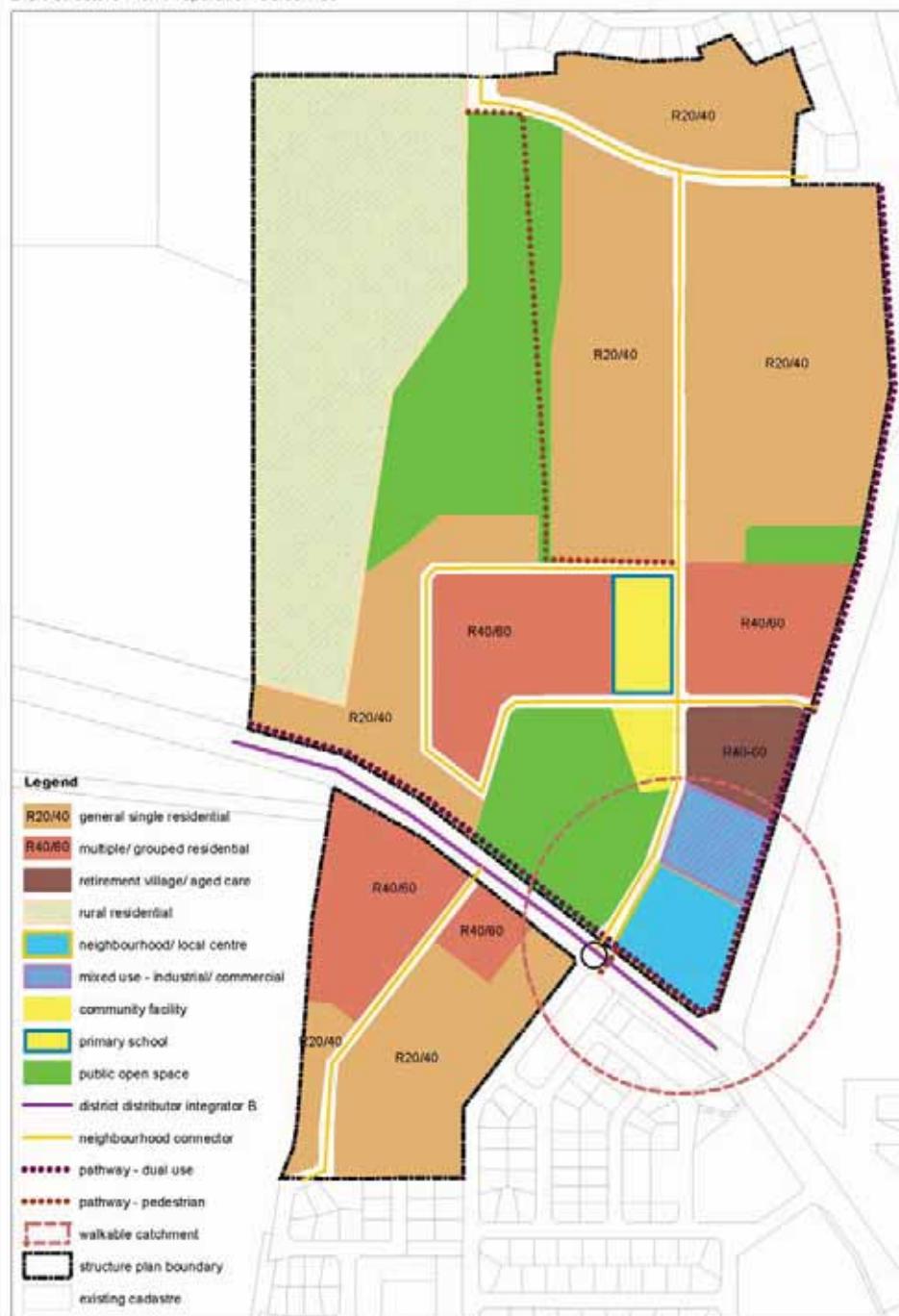
The lists below outline what should be shown on a structure plan map. Examples are also provided for guidance purposes. The map should be provided at a standard metric scale with a bar scale, north point, key street names, a drawing title and plan number. Annotations should not be placed on a structure plan map, except where annotation is necessary to indicate or highlight an item that is subject to future decisions or further investigations.

The structure plan map should be provided as a hard copy within the document and also in a digital format consistent with the Commission's *Structure Plan –Digital Data and Mapping Standards*.

The local structure plan map should show:

- the area covered by the local structure plan
- residential land with residential densities or density ranges (as per the *Residential Design Codes*)
- industrial land (as per local planning scheme zones)
- rural land (as per local planning scheme zones)
- tertiary education institutions
- high schools
- primary schools
- community purpose sites
- foreshore reserves
- regional open space
- district open space
- neighbourhood and local parks that perform critical secondary functions such as drainage, conservation, ecological linkages (Note: In areas of multiple ownerships all public open spaces may be required to be shown)
- activity centres and catchment areas as per State Planning Policy 4.2
- employment nodes
- roads classified as integrator arterials and neighbourhood connector (access roads may also be required to be shown, but only in areas of multiple ownership)
- local public transport networks
- significant car parking facilities
- major pedestrian and cycling networks
- land required for water management
- important beaches and water bodies
- other land uses as appropriate to the site and its context
- areas requiring detailed area plans
- infrastructure corridors (such as the Dampier to Bunbury gas pipeline).

Draft Structure Plan Preparation Guidelines



Example of Local Structure Plan

Activity centre structure plan map should show:

- the area covered by the activity centre structure plan
- all proposed land uses
- public spaces
- access points and movement networks (vehicles, pedestrians, cyclists, disabled access and public transport)
- car parking facilities for different types of access (e.g. public transport users, park and ride commuters and short stay visitors)
- main street location
- transit routes and stops
- major car parking facilities
- residential density or density ranges (as per SPP 4.2 and the *Residential Design Codes*)
- any requirements of SPP 4.2
- other land uses as appropriate to the centre and its context
- areas requiring detailed area plans.

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Example of Activity Centre Structure Plan*

7.1.2 Part One text

Part One (statutory section) should use the headings below and provide the following information:

1. Structure plan area
<ul style="list-style-type: none">Outline the area of land the structure plan applies to – as identified on the structure plan map. For example: ‘...land contained within the inner edge of the broken line shown on the Structure Plan Map.’Describe existing lots and plan numbers.
2. Structure plan content
<ul style="list-style-type: none">Outline that the structure plan comprises:<ul style="list-style-type: none">Part One – Statutory sectionPart Two – Explanatory informationAppendices – Technical reports.Clearly state that Part One includes only the structure plan map and provisions and requirements that need statutory effect.Clearly state that Part Two of the structure plan justifies and clarifies the provisions contained in Part One, and is used as a reference guide to interpret and implement Part One.
3. Interpretations and use class permissibility
<ul style="list-style-type: none">Outline that the terms used in the structure plan have the respective meanings given to them in the relevant local planning scheme, or where not defined in the local planning scheme, as set out in the structure plan.Provide a definition of key terms not already defined by the local planning scheme.Outline that the use class permissibility for each zone within the structure plan is outlined within the local planning scheme, or as varied by the structure plan.Provide details of the use class permissibility where a variation to a scheme provision is proposed.
4. Operation date
<ul style="list-style-type: none">Provide the date the structure plan comes into effect – being the date the structure plan was adopted.
5. Relationship to the local planning scheme
<ul style="list-style-type: none">Outline the statutory relationship between the structure plan and the local planning scheme.Clearly state whether the structure plan or the local planning scheme prevails in the case of any inconsistency.
6. Open space (local structure plans only)
<ul style="list-style-type: none">List all regional open spaces, foreshore reserves and public open spaces shown on the structure plan map and the area of each open space. <p>Note: Part Two of the structure plan is to include a plan indicating the location of all open spaces and a public open space schedule, demonstrating the complete provision of public open space as required by <i>Liveable Neighbourhoods</i>. In accordance with State and local government policy, not all nominated public open space areas will be credited as such for the purposes of calculating provision of public open spaces.</p>
7. Residential density
<ul style="list-style-type: none">Outline that density or density ranges shall be in accordance with the residential design codes shown on the structure plan map.Outline location and any other relevant criteria for implementation of density code ranges shown on the structure plan map.
8. General subdivision and development requirements

- Outline subdivision and development requirements (generally in accordance with the structure plan map).

9. Detailed area plan requirements

- Identify areas within the structure plan area where a detailed area plan is required.
- Identify the issues to be covered in the detailed area plan(s).

10. Variations to the Residential Design Codes

- Identify all variations to the *Residential Design Codes* that apply to the structure plan, and/or to specific areas with the structure plan area.

11. Operation and implementation

- Identify documents requiring completion (e.g. reports, surveys, strategies, investigations and plans).
- Provide the date required for document completion, to facilitate subdivision and development of the land as proposed by the structure plan, by whom, and identify the agency responsible for approving/endorsing the document
- Acknowledge any environmental conditions in previous approvals, or deferrals by the Environmental Protection Authority and outline how these will be addressed.

7.2 Part Two – explanatory section

Part Two serves as a reference guide to explain and implement the statutory provisions in Part One. It should contain concise information relevant to this purpose.

7.2.1 Local structure plan report

Part Two of a local structure plan should include the following:

1. Planning background
1.1 Introduction and purpose
1.2 Land description
1.2.1 Location <ul style="list-style-type: none">• Describe the location of the structure plan site.• Include a location plan showing location of the structure plan site in relation to the region.
1.2.2 Area and land use <ul style="list-style-type: none">• State the area covered by the structure plan in hectares and the current land use(s).
1.2.3 Legal description and ownership <ul style="list-style-type: none">• Provide certificate of title details and identify owners of the site. In multiple ownerships, certificate of title and ownership details should be in table format.
1.3 Planning framework
1.3.1 Zoning and reservations <ul style="list-style-type: none">• Identify the current zoning of the site and land reservations (region scheme and local planning scheme).• Identify any improvement plans.
1.3.2 Regional and sub-regional structure plan <ul style="list-style-type: none">• Provide a brief statement of compliance or variation with the relevant regional or sub-regional structure plan and district structure plan.
1.3.3 Policies <ul style="list-style-type: none">• List all relevant government policies and strategies and provide a brief statement of compliance or variation. Do not summarise or repeat policy requirements.• Justification for any policy variation.
1.3.4 Other approvals and decisions <ul style="list-style-type: none">• Provide a list of relevant approvals and decisions, including scheme amendments and other planning and environmental conditions attached to projects, schemes or amendments.

2. Site conditions and environment

2.1 Environmental assets and constraints

- Identify the vegetation present within the site (type and quality).
- Identify environmental assets (including flora, 'Bush Forever' policies, Threatened Ecological Communities (TEC), vegetation, fauna, fauna habitat, wetlands and rivers) and constraints on the site and on adjoining land.
- Include an aerial photograph showing the location and extent of environmental assets.
- Include a structure plan overlay showing the proposed structure plan over the environmental assets plan.
- Discuss how the identified environmental assets have been addressed by the structure plan.
- Include an environmental assessment and management strategy prepared by a qualified environmental consultant, and include the document as a technical appendix.

2.2 Landform and soils

- Identify soil types and confirm they do not inhibit the proposed development. Do not describe soil types.
- Provide any other relevant geotechnical information.
- Identify areas of high or medium and low risk acid sulphate soil potential and discuss managing this issue. Refer to WAPC's *Acid Sulphate Soils Planning Guidelines*, September 2010.
- Describe the landform and identify any major topographic features.

2.3 Groundwater and surface water

- Describe the surface water and groundwater conditions of the site and adjoining land.
- Identify any major hydro-geological conditions and Groundwater Protection Areas of the site and adjoining land.
- Identify wetlands and waterways including associated floodways, buffers and reserves of the site and adjoining land.
- Discuss how any water issues are to be addressed.

2.4 Bushfire hazard

- If relevant, address bush fire hazard risk or assessment and emergency access assessment in accordance with the WAPC's *Planning for Bushfire Protection Guidelines* (May 2010).

2.5 Heritage

- Identify and address any Aboriginal or European cultural or heritage features and show the location and extent on an aerial photograph.
- An ethnographic and Aboriginal heritage report should be included as a technical appendix, if relevant.

2.6 Coast

- If relevant, identify any coastal processes, foreshore reserves and setbacks.

2.7 Context and constraints analysis

This section should include a context and constraints plan highlighting surrounding land use and impacts and where appropriate, an indication of how the structure plan is to be integrated into the surrounding area. Consider:

- existing and future transport routes;
- major services and infrastructure, including drainage channels and drainage infrastructure;
- existing and planned activity centres and employment nodes;
- regional and district open space and community infrastructure;
- any existing land use buffers affecting the site; and
- other adjacent uses and impacts such as aircraft noise, transport noise, quarries, presence of unexploded ordinances, kennel areas, mosquitoes, market gardens, poultry farms, industrial activities, powerline corridors, gas pipelines, transit corridors, utility corridors, contaminated sites, fire hazards, floodways and telecommunications infrastructure.

3. Local structure plan

3.1 Land use

- Provide a brief explanation and justification of proposed land uses and integration with surrounding land use.
- Include the structure plan summary table (refer Section 5.1 – Executive summary).
- Include the full concept plan showing the local structure plan map with all information required by Part Two (below).

3.2 Residential

- Discuss how the structure plan responds to the relevant local planning strategy and *Residential Design Codes*.
- Describe and discuss proposed densities or density ranges as shown on the local structure plan map. Where targets have been identified in regional or district structure plans, outline how these targets have been met.

- Where density ranges are proposed, outline the criteria for determining density to apply to the land.
- Discuss intentions regarding lot sizes, lot mix, housing products and choice and lot yield estimates. Detailed lot layout, design or levels should not be shown.
- Describe what the views, outlook and lot orientation will be (based on the proposed street block pattern), and discuss implications of this on current industry best practice.

3.3 Movement networks

- Describe and justify the road network and hierarchy (all roads classified as neighbourhood connectors and above, except in areas of multiple ownership, where access roads may need to be shown).
- Assess road network capacity for peak demand.
- Discuss level of permeability and accessibility provided by the road network.
- Provide estimates of traffic volumes on proposed neighbourhood connectors and above.
- Provide indicative road cross-sections for each road type, showing carriageway, median and verge widths.
- Identify intersection controls and any traffic management issues and discuss the resolution of these issues.
- Identify the location and approximate size of major car parking facilities and describe what type of parking users each facility is for (e.g. public transport users, park and ride commuters and short stay visitors).
- Describe the proposed public transport network – regional, district and local.
- Describe the proposed major pedestrian and cyclist network.
- Include a movement networks plan showing estimated traffic volumes, areas requiring traffic management solutions, public transport networks and pedestrian and cyclist networks.
- To support this section, a local traffic and transport management strategy (transport impact assessment) should be prepared by a qualified transport consultant and included as a technical appendix.
- Refer to WAPC's *Transport Assessment Guidelines for Development* when preparing a local structure plan.

3.4 Open space

- Include an open space plan indicating location of all public open spaces – regional open space, foreshore reserves, district open space, neighbourhood parks, local parks and community purpose sites.
- Describe and justify size, distribution, form and function(s) of proposed public open spaces and accessibility of each open space area, including open spaces which will have a shared use or be co-located with a school, and open spaces which will have a major drainage function in terms of area of land required.
- Provide a public open space schedule demonstrating the complete provision of public open space as required by *Liveable Neighbourhoods*. In accordance with State and local government policy, not all nominated public open space areas will be granted credit as such for the purposes of the calculation of the provision of public open spaces.
- Discuss management arrangements and responsibilities for the proposed open spaces.

3.5 Water management

- Provide a concise summary of the local water management strategy.
- To support this section, a local water management strategy should be prepared by a qualified consultant and included as a technical appendix. The local water management strategy is to be prepared in accordance with the WAPC's *Better Urban Water Management* strategy (2008).
- In the absence of a district water management strategy to guide preparation of a local water management strategy, urban water management shall follow industry best practice for the purposes of the local structure plan.
- Identify the proposed drainage network and associated infrastructure requirements.

3.6 Education facilities

- Describe and justify the catchments, size and distribution of proposed tertiary, secondary and primary education facilities (government and non-government).

3.7 Activity centres and employment

- For each activity centre, where proposed, provide an indication of land uses and an estimate of retail floor space. Refer to SPP 4.2 – *Activity Centres for Perth and Peel*.
- Discuss employment provision within the structure plan and outline how targets specified within the regional and/or district structure plan will be met.
- Refer to the need for an activity centre structure plan for district centres and above, and a detailed area plan and/or development application for all other activity centres.
- To support this section, a local economic, retail and employment strategy and local community development strategy should be prepared by a qualified consultant and included as a technical appendix.

3.8 Infrastructure coordination, servicing and staging

- If applicable, provide a list of common local, community infrastructure and service items necessary for the implementation of the structure plan and/or are prerequisites for subsequent stages of planning.
- Discuss how the provision of common local infrastructure and service items are to be implemented.
- Discuss the likely staging of the provision of common local infrastructure and service items.

- Describe the infrastructure and service provisions to the structure plan area.
- Discuss the staging of the development proposed by the structure plan.
- A local infrastructure and servicing strategy should be prepared by a qualified engineering consultant and included as a technical appendix to support this section. The level of detail provided by the strategy should be appropriate to a local level of planning.

3.9 Developer contribution arrangements

- If relevant, describe relevant clauses within the local planning scheme that apply to developer contribution areas or development contribution plans.
- Refer to a developer contribution plan to be prepared for the local structure plan area, outlining the developer contributions required for the provision of standard and community infrastructure.
- A separate development contribution plan may be prepared pursuant to SPP 3.6 – *Developer Contributions for Infrastructure*.

4. Implementation

Outline the tasks to be completed for progress to the next planning stage.

The following list outlines the plans that should generally be provided within a local structure plan. Not all plans may be necessary or relevant to an individual structure plan. In some cases, additional plans may be necessary to allow proper assessment of the structure plan.

Plans to be included within Part Two of a local structure plan

1. Location plan
2. Aerial photograph
3. Structure plan overlay
4. Context and constraints plan
5. Full concept plan
6. Movement networks plan
7. Open space plan

The following list outlines the technical appendices that should generally be provided to support a local structure plan. Not all appendices may be necessary or relevant to an individual structure plan. In some cases, additional appendices may be necessary to allow for proper assessment of the structure plan.

Appendices

1. Environmental assessment and management strategy
2. Ethnographic and Aboriginal heritage report
3. Local traffic and transport management strategy
4. Local water management strategy
5. Local economic, retail and employment strategy
6. Local community development strategy
7. Local infrastructure and servicing strategy

7.2.2 Activity centre structure plan report

Guidance on detail and information in Part Two of an activity centre structure plan is found in SPP 4.2 *Activity Centres for Perth and Peel*, namely section 6.4, Table 7 and the model centres framework in Appendix 2.

8. Technical appendices

All technical and other documents prepared to support the structure plan should be attached as technical appendices.

A technical appendices index should list all documents in the technical appendices, and provide information on:

- the nature of the document (i.e. whether it is subject to a separate formal approval process or a supporting document only);

- its approval status (approval date or expected approval time) at lodgement of the structure plan; and
- the agency approving the document.

Table 2 provides an example of a format for the technical appendices index.

Table 2: Technical appendices index

Appendix No.	Document title	Approval required OR supporting document only	Approval status	Approval agency
1				
2				
3				
4				
5				

9. Pre-lodgement consultation

Consultation with relevant stakeholders is critical when preparing a structure plan to achieve proper planning and best outcomes. Consultation is best undertaken prior to preparing a structure plan, to allow the applicant full appraisal of the site's context, State and local government requirements, and any issues affecting site development.

Applicants should consult with relevant stakeholders and record the details and outcomes of the consultation. The table below lists stakeholders likely to have an interest in a structure plan, and shows how consultation can be recorded. Only those stakeholders who are consulted need to be listed.

Table 3: Pre-lodgment consultation

Agency	Date of consultation	Summary of outcome
Local government		
Department of Planning		
Department of Water		
Department of Environment and Conservation		
Department of Education		
Department of Indigenous Affairs		
Main Roads Western Australia		
Heritage Council		
Department of Transport		
Public Transport Authority		
Environmental Protection Authority		
Synergy		
Alinta Gas		
Water Corporation		
Telstra		
Non-government school providers		
Department for Community Development		
Department for Sports and Recreation		
Fire and Emergency Services Authority		
Land owners within and adjacent to the structure plan area		
Relevant community groups in the area		
Any other relevant government agency as required		

10. Modifications to a structure plan

The draft Guidelines, define what constitutes a ‘major’ or ‘minor’ modification to an approved structure plan (refer Part One and/or structure plan map). The process to modify a structure plan will be covered by the General Provisions for Local Planning Schemes Regulations currently being prepared.

10.1 Major and minor modifications

A ‘minor’ modification to a structure plan is a change or departure that does not materially alter the intent of the structure plan.

A major modification to a structure plan is any change or departure not defined as a minor modification.

A modification designated ‘major’ or ‘minor’ depends on:

1. whether there is an existing community and/or adjoining residential area(s) or development; and
2. whether the proposed modification impacts upon the existing community and/or adjoining residential area(s) or development.

Examples of minor modifications are:

- an increase in residential density that retains residential banding (i.e. ‘low’, ‘medium’ or ‘high’ density);
- realignment of neighbourhood connector roads or below that do not negatively affect the connectivity of the movement network or accessibility to activity areas;
- modifications to public or community land use (district or local) that do not alter the overall provision of and accessibility to the public or community land uses throughout the structure plan area;
- modifications to the size and location of activity centres, high schools, primary schools, public and community purpose sites that do not alter the overall distribution of, or accessibility to, these land uses (Note: consultation must be undertaken with the Department of Education if any modification is proposed to high schools or primary schools); and
- any change to major pedestrian and cyclist network that does not negatively affect connectivity or accessibility to destinations and activity areas.

10.2 Documentation

Documentation supporting minor modification to a structure plan should comprise a brief report and plans relevant to that modification. Once the modification is approved, a revised version of the entire document should be prepared and distributed to the local government and the WAPC.

Documentation supporting major modification to a structure plan is required to be more comprehensive, as such modifications are advertised for public comment. A modified version of Part One and the structure plan map should be lodged with an explanatory and supporting report and any relevant technical appendices in support. Once the modification is approved, the revised version of the entire document should be prepared and distributed to the local government and the WAPC.

All documentation should be lodged in hard and digital copies.

All modifications to a structure plan should be listed in a table of modifications attached to the structure plan (refer Appendix 1).

Glossary

Community purpose site means an area of land more than 2000m² to accommodate community land uses such as community centres, meeting halls, libraries and kindergartens. Community purpose sites will form part of the public open space contribution.

District open space means an area of public open space, generally between 2.5 to 7 hectares, which will accommodate a combination of informal play areas, formal playing fields and hard surfaces for organised sports.

Foreshore reserve means land abutting a river, creek, lake or coast that has been identified as necessary for conservation, environmental protection and/or recreation purposes.

Important beaches and water bodies means any beach or water body that performs a critical function for either recreation and/or conservation purposes.

Primary distributors means those arterial routes that are highly connective, with service roads and wherever possible, limited intersections. They are often signal controlled. Indicative maximum traffic capacity is 35,000 vehicles per day for four lanes and 50,000 vehicles per day for six lanes.

Integrator arterials or arterial roads is a route that has frequent connections to local streets and development frontages along its length. The higher order integrator arterial route typically has service roads with on-street parking for mixed use developments. Direct vehicle access is limited where there are no service roads. For lower order integrator arterial roads, one clear lane for each direction with on-street parking is common. Indicative traffic capacity is between 20,000 to 35,000 vehicles per day.

Key neighbourhood connector means a neighbourhood connector road (as defined by *Liveable Neighbourhoods*) that is critical for connectivity and permeability throughout a district and key destinations in the district.

Major pedestrian and cyclist network means the network that is necessary for pedestrian and cyclist connectivity throughout an area, other adjacent areas and key destinations (such as schools, activity centres, public transport nodes, regional open space, public open space and employment nodes).

Local park means an area of public open space, generally less than 3000m², designed and located for local children's play, rest places, pedestrian connectivity and creation of a local sense of place.

Neighbourhood park means an area of public open space, generally between 3000 to 5000m² or larger, located and designed for informal active recreation and play, and passive recreation.

Public open space means 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 reserves.

Regional open space means land defined under a region scheme, regional structure plan or sub-regional structure plan as a Parks and Recreation Reserve, to accommodate major playing fields and/or regional conservation and environmental features.

Appendix 1: Table of modifications to Part One and structure plan map

Modification no.	Description of modification	Endorsed by council	Endorsed by WAPC

DRAFT

References

- Acid Sulphate Soils Planning Guidelines*, Department for Planning and Infrastructure, December 2008.
- Better Urban Water Management*, Department for Planning and Infrastructure, and Department of Water, October 2008.
- Draft Local Planning Policy 4.2: Structure Planning*, Planning, City of Wanneroo, June 2010.
- Liveable Neighbourhoods Edition 3*, Department for Planning and Infrastructure, October 2007.
- Planning for Bushfire Protection Guidelines – Edition 2*, Department of Planning, May 2010.
- State Planning Policy 3.1 Residential Design Codes*, Western Australian Planning Commission, April 2008.
- State Planning Policy 3.6 Development Contributions for Infrastructure*, Western Australian Planning Commission, November 2009.
- State Planning Policy 4.2 Activity Centres for Perth and Peel*, Western Australian Planning Commission, August 2010.
- Structure Plan – Digital Data and Mapping Standards*, Department of Planning 2010.

A full list of State planning policies, planning guidelines and manuals is available on the WAPC website.

Consultation paper: Draft structure plan preparation guidelines

DRAFT

June 2011

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1. Introduction

This consultation paper provides:

1. an outline to the development of the *Draft Structure Plan Preparation Guidelines* (the draft Guidelines) by the Department of Planning (the Department);
2. the approach taken by the Department in preparing the draft Guidelines;
3. format and content of the draft Guidelines; and
4. a discussion of key issues in the draft Guidelines.

2. Call for submissions

Submissions are invited on the draft Guidelines and should be lodged with the Department by XXXXXXXX 2011.

The e-mail address for submissions is: XXXXXXX

The postal address for submissions is:

Submission: Structure Plan Preparation Guidelines
Department of Planning
Locked Bag 2506
Perth WA 6001

3. Background

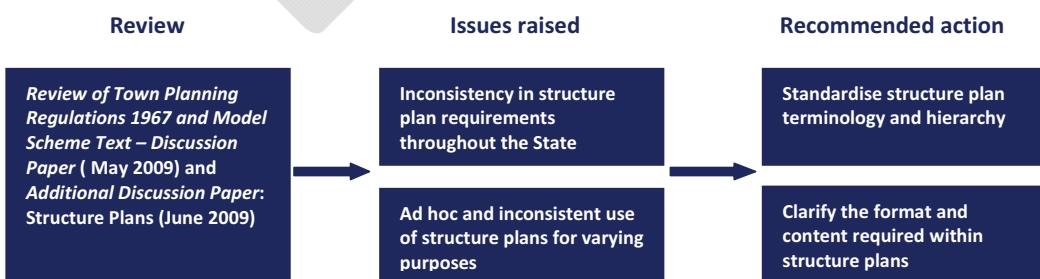
Currently, guidance on the format, content and hierarchy of structure plans is provided in:

- State Government documents;
- local planning schemes; and
- local government policies and documents.

These documents often lack consistency and do not reflect current industry practice.

Use and assessment of structure plans have also become ad hoc, with a lack of guidance and consistency in preparation and assessment. A standard for terminology, hierarchy, format and content is therefore required.

The *Review of Town Planning Regulations 1967 and Model Scheme Text Discussion Paper* (May 2009), and *Town Planning Regulations 1967 and Model Scheme Text Additional Discussion Paper* (June 2009) highlighted the need for uniform structure plans in Western Australian local planning schemes.

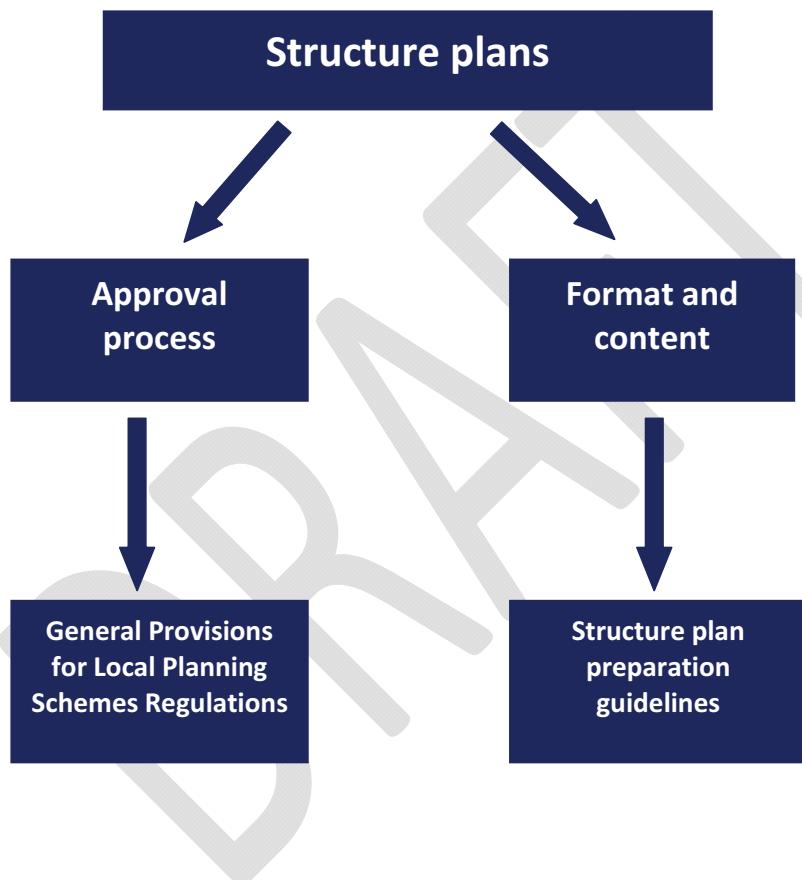


The draft Guidelines have been prepared to standardise format and content of structure plans. The draft Guidelines will replace the Western Australian Planning Commission's (WAPC) current structure planning provisions within its *Liveable*

Neighbourhoods (2007) policy (Guide pages 10, 11, 13–15 and Appendix 1) and the *Guidelines for the Preparation of Local Structure Plans for Urban Release Areas* (June 1992).

The draft Guidelines, do not cover the structure plan approval process. This will be dealt with by the General Provisions for Local Planning Schemes Regulations (the Regulations) currently being prepared.

The Regulations will reduce complexity of structure plan approvals, and the need for multiple assessments of the same document. The Regulations will identify when a structure plan is required, and provide a uniform approval process for the State. The Regulations will apply to all State local planning schemes. The draft Guidelines may need to be reviewed and updated following gazettal of the Regulations.



4. Objectives of the draft Guidelines

The draft Guidelines aim to:

- standardise terminology and hierarchy of structure plans; and
- provide assistance and guidance on format and content of structure plans.

The draft Guidelines will specifically:

1. ensure information provided is appropriate to the structure plan's scale and level;
2. provide clear guidance on information excluded in structure plans;
3. establish consistency in structure plan format and content for the State;
4. provide clarity and consistency on statutory and non-statutory components of structure plans;
5. provide clear guidance to applicants, local government and the WAPC on structure plan preparation; and
6. assess whether a structure plan has all the required information.

5. Approach

Preparation of the draft Guidelines was undertaken by the Department and its consultants. A project reference group was created, comprising members from State and local governments, consultants and the land development industry. The group was consulted at key milestones in the project.

The approach taken in preparing the draft Guidelines involved four steps:



5.1 Document and issues review

Step 1 involved full review of:

- current national documents relevant to hierarchy, format and content of structure plans;
- local government town planning schemes, policies and other documents relevant to hierarchy, format and content of structure plans (Cities of Wanneroo, Swan, Rockingham, Cockburn and Shire of Murray);
- existing structure plans;
- draft local planning policies (in particular, City of Wanneroo Draft Local Planning Policy 4.2: Structure Planning);
- submissions raised by the *Review of the Town Planning Regulations 1967 and the Model Scheme Text Discussion Paper* (May 2009), and *Additional Discussion Paper Structure Plans* (June 2009); and
- issues raised by the project reference group (refer to Appendix 1).

A *Document Review and Issues Report* (the report) was prepared in March 2010 after completion of Step 1. The report recommended the following headings:

- hierarchy, terminology and definition
- statutory elements of structure plan
- format of structure plan
- information requirements
- plan and mapping standards
- pre-lodgement consultation
- amendments to structure plans (now referred to as 'modifications').

The report analysed and discussed key topics and issues relevant to the draft Guidelines, and outlined options and recommendations for discussion with the project reference group (Step 2).

A summary of key issues and recommendations included in the report is provided below.

5.1.1 Key issues and recommendations

Hierarchy, terminology and definitions

Structure plans are currently called 'district and local structure plans', 'outline development plans', and 'indicative development plans' and others are also widely used. Submissions on the *Review of Town Planning Regulations 1967* and the two model scheme text discussion papers highlighted the inconsistency in terminology and recommended the term 'structure plan'. The report also highlighted the need to better define hierarchy of structure plans and provide scope, scale and function for each structure plan.

A structure plan hierarchy aims to establish the appropriate level of reporting and information at the correct stage of the planning process. Structure plans should contain detail appropriate to their level in the hierarchy and not pre-empt or pre-determine subdivision design.

The report recommended that the hierarchy in the *Review of the Town Planning Regulations 1967* and the model scheme texts be maintained, namely:

1. sub-regional structure plans
2. district structure plans
3. local structure plans
4. activity centre structure plans.

The report also recommended:

- the Guidelines allow merger of district and local structure plans into one structure plan where appropriate;
- that detailed area plans, while used in structure plans and subdivision applications, not be considered structure plans, and be subject to separate process;
- activity centre structure plans be required for district centres and above, and for this level of structure plan to be included in the draft Guidelines (consistent with *State Planning Policy 4.2 Activity Centres for Perth and Peel* gazetted in August 2010)..

Statutory elements

Most of the documents reviewed did not clearly define statutory and non-statutory sections of a structure plan.

However, the City of Wanneroo Local Planning Policy 4.2 stipulated that structure plans be separated into statutory and non-statutory sections (Parts One and Two respectively), and provided guidelines for Part One. This was recommended to make the structure plan more user friendly.

The report recommended the draft Guidelines provide information included in Part One of a structure plan (similar to City of Wanneroo Local Planning Policy 4.2), and that the statutory section of the plan include:

- land use zoning or reservations;
- R-Codes or residential densities;
- development standards;
- development requirements (undertaken before the next planning stage);
- land use tables (permitted land uses); and
- a statement regarding the relationship to the local planning scheme.

The review outlined that the non-statutory section of a structure plan justify and explain the structure plan, and only contain information for this purpose.

Format of structure plans

The report stated government and industry consensus, was that a structure plan comprise:

1. a report;
2. plans and mapping standards; and
3. technical investigations and studies as appendices.

The report recommended this format be used.

The report recommended a checklist and table of contents for each level of structure plan to standardise listings of issues and headings.

Information and mapping requirements

The report recommended the Guidelines clearly outline information required for each level of structure plan for consistency.

The report provided a template which could be used to create a checklist and table of contents for the Guidelines.

Pre-lodgement consultation

The report encouraged consultation with government, relevant authorities and affected landowners prior to lodging the structure plan, but this was not a statutory requirement.

The report concluded that such consultation would allow appraisal of all issues affecting the site, and identify any issues early – effectively providing a site and context analysis. Prior consultation with government would particularly identify any serious flaws in the structure plan.

Modifications to structure plans

The report highlighted that current definitions of ‘major’ and ‘minor’ modifications are open to interpretation. Local planning schemes defined minor modification to structure plans as one that ‘does not materially alter the intent of the structure plan’ in the opinion of the local government. By default, major modifications were those that did materially alter the intent of the structure plan in the opinion of the local government.

The report recommended that the guidelines incorporate specific definitions for a ‘minor’ and ‘major’ modification, and made allowance for small variance to the definitions. It suggested this issue be further discussed to improve current definitions.

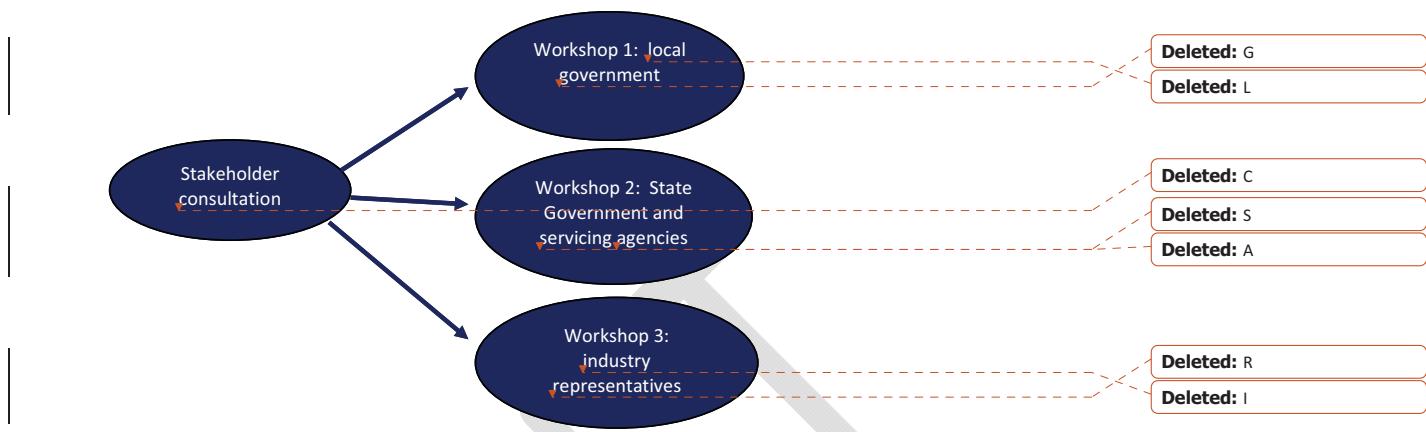
5.2 Preparing the draft Guidelines

The next step of the project involved preparation of the draft Guidelines.

Representatives of the Department and project reference group assessed the outcomes and recommendations of the report. The draft Guidelines were prepared and circulated to the project reference group and Department for review and comment. Changes were made to the draft Guidelines after this review, and a final draft was prepared.

5.3.1 Stakeholder consultation

After the draft Guidelines were prepared, three workshops were held with stakeholders in February 2011 to obtain feedback.



A copy of the draft Guidelines was distributed to all attendees before each workshop.

Attendees were briefed on the draft Guidelines, and provided feedback. Those not at the workshop provided feedback by email. The Department received a large response by this method.

Detailed notes and minutes were taken at each workshop to ensure all feedback was recorded.

5.3.1 Key issues

Key issues identified from feedback received were:

- distinguishing between 'strategic' and 'statutory' structure plans;
- whether district structure plans were statutory or strategic;
- that more detail was required in Parts One and Two (statutory and explanatory components) of a local structure plan relating to public open space, road hierarchy, road reserve widths and indicative lot layout and levels;
- that more detail was required on structure plans for semi-rural, rural residential or peri-urban areas for local structure plans in urban environments;
- that more detail was necessary for orderly and proper planning, and that the draft Guidelines acknowledge this;
- the value of direct references and links to all relevant legislation, policies, strategies and documents necessary for a structure plan;
- the need for flexibility to allow different site types and planning issues;
- clarifying that the draft Guidelines were to be used as a 'guide' only; and
- the link between the draft Guidelines and the proposed Regulations.

5.4 Preparing draft Guidelines for public advertising

Feedback received was collated and reviewed after the stakeholder workshops. The draft Guidelines were revised to adopt much of the feedback received.

The draft Guidelines are now suitable for public advertising.

6. The draft Guidelines

The draft Guidelines now apply to all structure plans, and describe the scale, purpose, land use and content for each level of structure plan.

The draft Guidelines:

- provide definition and function for sub-regional structure plans, but do not provide guidance on format and content for such plans;
- provide detailed guidance on format and content for district and local structure plans;
- refer to State Planning Policy 4.2 for guidance and information on activity centre structure plans.

Information requirements given in the draft Guidelines are best suited to structure plans for new urban developments within the Perth and Peel regions. Information required for other areas in the State will be different – and this will be determined by local government, the WAPC and other State agencies on an individual basis.

The draft Guidelines are intended for use by landowners, their representatives, or a local government preparing the structure plan. The Guidelines will provide the level of structure plan, guidance on the format and information required, and advice on pre-lodgement consultation. The Guidelines are also intended for use by decision-making authorities during the structure plan assessment process.

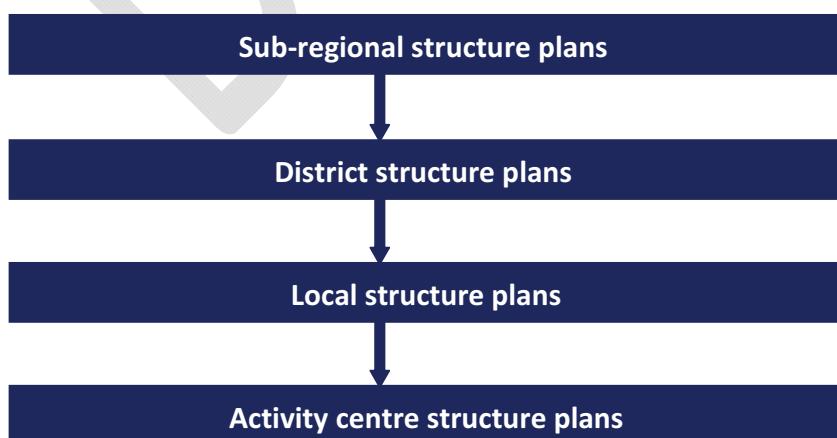
The draft Guidelines are not an urban design policy and do not address issues relevant to urban design or guide structure plan design. Applicants should refer to the relevant WAPC and local government policies, including *Liveable Neighbourhoods*, for requirements relevant to urban design.

The draft Guidelines do not reference or link other legislation, strategies, policies or documents relevant to preparation of a structure plan, or any technical appendix supporting the plan.

Key policies have been addressed in the draft Guidelines – however, applicants need to ensure that all relevant legislation, strategies, policies or documents are also included in their structure plan.

6.1 Structure plan hierarchy and status

The draft Guidelines provide for four levels of structure plans. Each level reflects the context and scale of the proposal, planning issues relevant to that level, and to the decision being made.



Structure plans can be statutory or strategic.

Statutory structure plans are those requiring assessment and approval under a local planning scheme for land within a 'development' (or similar) zone. A statutory structure plan will apply land use zones and residential densities to the land, which will have major statutory effect.

The draft Guidelines propose that only local structure plans and activity centre structure plans be made statutory. Only Part One of a local structure plan and activity centre structure plan will have statutory effect.

Strategic structure plans are prepared over land unzoned for more intense development, or land requiring guidance to ensure coordination in subsequent layers of planning and development is achieved. Strategic structure plans are based on a general heads of power included in a local planning scheme.

The draft Guidelines propose that sub-regional and district structure plans are strategic documents which do not have a Part One (statutory) component. They are strategic plans which may cross local government boundaries.

6.2 Matters addressed by draft Guidelines

The draft Guidelines provide direction on:

- format of a structure plan (including an explanation of the division into Part One and Part Two for local structure plans and activity centre structure plans);
- information and plans required for a structure plan;
- information not required for a structure plan;
- structure plan report headings and information required for each heading;
- information shown on a structure plan map;
- pre-lodgement consultation; and
- major and minor modifications to a structure plan.

6.3 Mapping standards

The *Structure Plan – Digital Data and Mapping Standards* in the draft Guidelines will standardise structure plan digital data with regard to:

- format
- projection
- metadata
- land zone or land use classifications
- data symbols
- overall appearance and functionality of structure plans lodged with decision-making authorities.

Comments on the Digital Data and Mapping Standards as part of the draft Guidelines are also invited.

Appendix 1: Documents reviewed

The following documents have been reviewed:

State Government

- *Liveable Neighbourhoods*, October 2007
- *Guidelines for the Preparation of Local Structure Plans for Urban Release Areas*, June 1992
- *Better Urban Water Management*, October 2008
- *Planning Bulletin No.92 – Urban Water Management*
- *Multi Unit Housing Code Explanatory Guidelines*, November 2009
- *State Planning Policy 4.2: Activity Centres for Perth and Peel*, August 2010
- *Acid Sulphate Soils Guidelines*, January 2009
- *Planning for Bushfire Protection*, December 2001.

Local government

City of Wanneroo

- *District Planning Scheme No. 2*
- *Information Sheet – Amendments to Structure Plans*
- *Local Planning Policy 4.2: Structure Planning*.

City of Cockburn

- *Town Planning Scheme No. 3*.

Shire of Murray

- *Town Planning Scheme No. 4*.

City of Swan

- *Local Planning Scheme No. 17*
- *Local Planning Policy POL-C-4.3 Preparation and Assessment of Structure Plans*.

City of Rockingham

- *Practice Notes and Planning Procedure 1.6 Preparation and Assessment of Structure Plans*.

Interstate

Queensland

- *Coomera Town Centre Structure Plan (January 2009)*, Gold Coast City Council
- *South East Queensland Regional Plan; Implementation Guidelines No. 4 – Structure Plans*, Queensland Department of Infrastructure and Planning
- *South East Queensland Regional Plan 2009–2031*, Department of Infrastructure and Planning
- *Sustainable Planning Act 2009*, Queensland State Government.

New South Wales

- *The Growth Centres*, NSW Department of Planning
- *Local Structure Plan*, Maitland City Council
- *Development Code*, NSW Department of Planning (formerly Growth Centres Commission)
- *Metropolitan Strategy*, NSW Department of Planning.

Victoria

- *Burwood Heights Activity Centre Structure Plan*, City of Whitehorse, Victoria
- *Activity Centre Design Guidelines*, Victoria Department of Sustainability and Environment
- *Melbourne 2030: a Planning Update*, Victorian Government
- *Precinct Structure Planning Guidelines*, Victoria Growth Centres Authority

- *Structure Planning for Activity Centres*, Victoria Department of Planning and Community Development.

South Australia

- *Draft Port Augusta Structure Plan*
- *Planning Strategy for Metropolitan Adelaide*, Government of SA
- *Development Plans and Development Plan Amendments*, Planning SA.

Existing Structure Plans (WA)

- *Alkimos Eglinton District Structure Plan*
- *Alkimos North Local Structure Plan*.

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**Structure plan –
Digital data and mapping standards**

June 2011

DRAFT

Version 1.10



**Government of Western Australia
Department of Planning**

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Background

Structure plans are documents which specify land use arrangements, transport networks, open space systems, utility networks, infrastructure management and development standards over a specified spatial area. They provide a framework and platform for coordinated development by assessing land use opportunities and constraints.

The Department of Planning (the Department) is responsible for structure plan information in Western Australia. This information is captured digitally and used to monitor and anticipate land release for future infrastructure provisions.

Structure plans provide a framework to guide land subdivision and development. They coordinate provision of land use, community facilities, services and infrastructure.

Mapping and geospatial data maintain the Department's structure plan information. There is therefore a need to ensure such data is consistent, manageable and complete.

The *Structure Plan – Digital Data and Mapping Standards* (the *Standards*) was developed by the Department to provide specification and guidance for submission of digital and geospatial data in structure plan applications. The *Standards* will mean more efficient processing and cost reduction in structure plan preparation.

The *Standards* should be read together with the *Draft Structure Plan Preparation Guidelines* (the *Draft Guidelines*), prepared by the Department and the Western Australian Planning Commission (WAPC). The *Draft Guidelines* provide guidance on preparation and assessment of structure plans.

1. Source and objectives

The *Standards* have been developed in accordance with the *Local Government Spatial Information Management Toolkit (Version 2.0)*¹, and in line with State, national and international mapping and geospatial standards. A mapping standards report published by the New South Wales government was also consulted².

The *Standards* aim to:

1. establish consistency in format and content of digital and geospatial data submitted in structure plans in Western Australia; and
2. provide clear guidance to applicants, local government and the WAPC on use of digital data and maps in structure plans.

The *Standards* will cover both mapping and geospatial data standards.

Note: The *Standards* and *Draft Guidelines* are not urban planning or design policies. Applicants must refer to relevant WAPC and local government policies, including *Liveable Neighbourhoods*, for all policy requirements relevant to structure plan design.

1.1 Audience

The *Standards* are intended for :

- landowners or their representatives
- local government authorities
- decision-making authorities.

Technical information is directed to applicants preparing maps and geospatial data for digital submission.

The *Standards* and *Draft Guidelines* do not apply to preparation of regional or sub-regional structure plans, as these are dealt with by the WAPC.

Mandatory and optional requirements in the *Standards* are provided in the checklist at Appendix 3.

¹ Available online at <http://www.alga.asn.au/policy/infotech/spatialinfotoolkit/>

² 'Standard technical requirements for LEP maps' is available online at
<http://www.planning.nsw.gov.au/LocalEnvironmentalPlans/MappingStandardsandRequirements/tabid/251/language/en-AU/Default.aspx>

2. Documentation

The *Standards*, *Draft Guidelines* and geospatial files in support of the structure plan application can be downloaded from the Department's website (www.planning.wa.gov.au) or requested by email (mapping@planning.wa.gov.au).

The supporting geospatial files provided aim to illustrate aspects of the *Standards* and consist of:

- sample ESRI files for polygon and line data (layer packages.lpk)³; and
- metadata template (.xml and .txt) for constructing metadata.

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³ A layer package consists of a layer file (.lyr) containing sample symbology and a copy of the relevant data in shapefile format (.shp). A layer package is similar to a zip file in that it needs to be ‘unpacked’ to be able to access the files within. Do this by simply double clicking the layer package file in Windows Explorer and it will unpack itself, launch an ArcMap document and load the layer file. ESRI ArcGIS Help on layer packages is available at: <http://resources.arcgis.com/content/web-based-help>.

3. Digital and electronic data submission

3.1 Digital files

Digital copies of all structure plan documents should be included when submitting the structure plan to the Department. They must comprise:

1. the structure plan report in the format shown at sections 4 and 5 of the *Draft Guidelines*;
2. the final structure plan map, which is an electronic copy of the map in the report; and
3. geospatial data in the format shown at section 4 of the *Standards*.

Digital copies should be submitted on DVD or CD and labelled to show:

- structure plan title
- version(s)
- date
- authors and/or agency making the submission
- disc contents
- disc number if more than one is submitted.

3.2 Electronic files

Electronic files submitted must follow prescribed formats and naming standards, or be deemed non-compliant (refer section 7).

Security settings for the structure plan report and final structure plan map must allow printing, copying and/or page extraction.

Settings for other document files must allow viewing, printing, saving and/or electronic transfer, and be Windows OS compatible.

3.3 File naming

1. File names should be consistent and contain:
 - the title (e.g. ‘Alkimos Local Structure Plan’)
 - version number (e.g. ‘v2.0’)
 - date (YYYYMMDD).
2. Titles should indicate the level of structure plan (e.g. activity, local or district). Acronyms used should be defined (e.g. ‘Local Structure Plan (LSP)’).

An example of a full title is ‘AlkimosLSP_v2.0_20110422.pdf’.

4. Geospatial data standards

This section defines geospatial data standards that are required to produce the final structure plan map. Section 4.5 outlines data standards required for supplementary maps submitted (e.g. locality maps).

4.1 Map projection and coordinate systems

Geospatial digital data files are accepted in either geographic or projected (grid) coordinate systems and must conform to the following system definitions:

Geographic coordinate systems:

GCS_GDA94 (Geocentric Coordinate System, based on Geocentric Datum of Australia 1994).

Projected/grid coordinate systems:

Source:	MGA (Map Grid of Australia) ⁴
Datum:	GDA94
Projection:	Transverse Mercator, utilising 6 degree Zones, Scale Factor at the Central Meridian 0.9996 in conformity with the Universal Transverse Mercator system.
Units:	International metre
False Coordinate Origin (All Zones):	Northing 10,000,000 metres. Easting 500,000 metres
Zones (for WA):	49–52 as applicable.

4.2 Metadata

Metadata can be described as ‘data about data’. It consists of documentation about a geospatial dataset, and is required for each dataset submitted as part of a structure plan.

Metadata should be in .xml or .txt format (the applicant may use the metadata template provided).

Essential fields to be completed are:

⁴ As described in *The Map Grid of Australia 1994 – A simplified Computational Model*, available at:
[http://www.dpi.vic.gov.au/CA256F310024B628/0/7E6424934E18A750CA25778200221BD9\\$/File/The+Map+Grid+of+Australia+1994+Computational+Manual.pdf](http://www.dpi.vic.gov.au/CA256F310024B628/0/7E6424934E18A750CA25778200221BD9$/File/The+Map+Grid+of+Australia+1994+Computational+Manual.pdf)

- Title (e.g. 'Alkimos Local Structure Plan');
- Abstract (summary of the dataset);
- Purpose (summary of the aims of the data);
- Citation Title (title used to cite the data, e.g. 'Roads');
- Originator (name of the organisation or person that created the data);
- Publication Date (date the data was published or released);
- Author and Data Custodian (if different, show details for the developer and GIS mapping agency/organisation);
- Data Source (where or whom the data was sourced from);
- Geospatial Reference (see also Section 4.1);
- Additional attributes not specified in this document;
- Level information for CAD files.

4.3 Geospatial data files

The Department will accept the following geospatial data file formats or types:

- Shapefiles (.shp)
- File or personal geodatabases (.gdb, .mdb)
- Computer Aided Design (CAD) – includes Microstation (.dgn) or AutoCAD (.dwg, .dxr).

Geospatial data submitted should comprise at least two files with:

1. structure plan boundary (as polygon)
2. land use or zone classifications (as polygons).

ESRI map document files (.mxd) are also accepted, provided all accompanying or referenced data is included in any of the above formats and file path names are set to 'relative'.

4.3.1 Shapefiles and geodatabases (vectors)

Use of feature datasets is recommended if a geodatabase is provided in order to separate and group geospatial elements according to their purpose or content (refer Figure 1).

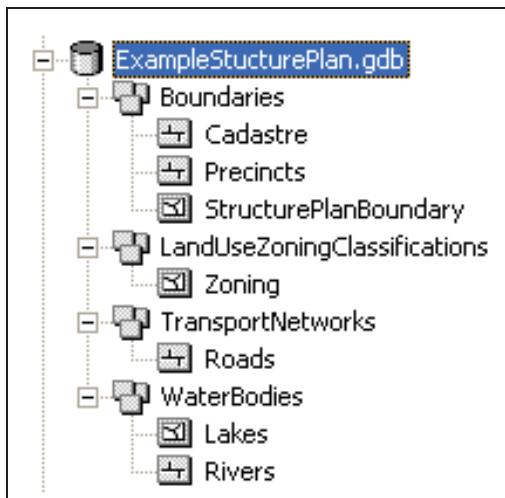


Figure 1 – File or personal geodatabase structure

If geospatial data is provided in Shapefile format, it is recommended that at least two Shapefiles be provided to meet requirements in section 4.3.

Zoning category/land use or zone classifications must adhere to categories outlined in Appendix 1. Applicants must not supply different or alternative zoning category/land use or zone classifications.

If applicants genuinely need to include additional land use information not covered by classifications in Appendix 1 (e.g. building envelopes or revegetation areas), this should be placed in separate Shapefile(s) or feature class(es) with an appropriate name (e.g. ‘AdditionalLandUses’ or ‘AdditionalInfo’).

Applicants should not create their own land use categories, and land use information should not be placed under the title ‘additional land use’.

Categories and symbols provided in Appendix 1 have been created and compiled with stakeholders, and are designed to encompass the limits of land use commonly applied in structure planning. All submissions are reviewed for compliance according to categories in Appendix 1. Refer to section 7 for further information on non-compliant submissions.

(a) Geometry

The following geospatial standards should be adhered to:

Polygon geometry must be used for:

- structure plan boundaries
- land use or zone classifications.

Land use or zone classification polygons should:

1. not extend beyond the structure plan boundary polygon;
2. not overlap each other;
3. ideally have edges snapped together and where applicable, an appropriate cadastre; and
4. where possible, fit neatly together with no overhangs or undershoots.

Line geometry:

Lines may be used where appropriate (e.g. for roads, waterways and buffers). Where features fall within categories shown in Appendix 1, style, naming and symbols must follow its specifications.

Point geometry:

There are no current standards for point data but point data may be included where appropriate. It is suggested point data be used to show general or indicative locations of proposed features. Examples of point feature locations are transport stations and suggested parking bays.

(b) Attribute data

Provision of attribute data is largely at the discretion of the applicant, but the following must be provided and followed:

- land use/zone fields (for polygons), using names or values set out in Appendix 1.
- Use either land uses from zoning category or zones, or both, as set out in Appendix 1. However, a mix of zoning category and zones are not permitted.

An example of an attribute table is given below.

Table 1 – Attribute table

Zoning category/ land use	Zones/land use	*SP_Label	SP_additional_info
Residential	General Single Residential	R60	Aged Care Facility
Commercial	Commercial		
Parks and Recreation	Conservation	GW	Gnangara Mound Protection Area
Parks and Recreation	Parks and Recreation	P & R	

* Structure plan

4.3.2 Computer Aided Design (CAD) files

CAD files are accepted formats of geospatial data. Files provided should conform to standards in sections 4.1 and 4.2. Drawings should follow symbols and styles in Appendix 1 and apply relevant land use or zoning classifications.

A given set of land use category and/or zone entities must be placed on separate levels or layers, and be closed polygons or shapes. Levels should be named and numbered. Additional information should be placed on a separate level, with any relevant notes.

4.3.3 Raster data

Raster data refers to aerial photography or satellite imagery, and is not necessary to be in ‘background’ in the structure plan map.

Structure plan maps should not be converted to raster format, but kept in vector format.

4.4 Textual information

Annotation should be avoided unless absolutely necessary. Exceptions to this include R-code and dwelling density targets labels (refer sections 4.4.1 and 4.4.2) or areas for further investigation.

Textual information in shapefile and geodatabase formats in the structure plan map must be feature linked to attribute data. There should be no free floating graphics. Annotation feature classes are accepted.

Map texts or annotations in CAD files should be stored on a separate level or layer.

Section 5.2 provides further information on styles and symbols to be used.

4.4.1 R-Codes

This section should be read with the *Draft Guidelines*.

Inclusion of R-Code information is only required for local structure plan maps (i.e. geospatial data). District and activity centre structure plan maps require density targets (refer section 4.4.2).

R-Codes should be indicated on the structure plan map by labels or textual information in the legend or map area.

Geospatial data for R-Code submissions should adopt the following formats:

1. Shapefile and geodatabase textual format should consist of either:

- as an additional attribute for a polygon feature for a given land use category or zone;
 - as part of a feature-linked annotation class;
 - as part of a separate additional Shapefile or feature class (polygon geometry) with an appropriate R-Code attribute or field.
2. Free floating graphics are not accepted for R-Code labels.
 3. CAD data showing R-Code extents or boundaries should be polygons and/or closed shapes with appropriate symbology applied (refer Appendices 1 and 2). R-Code labels should be placed on a separate layer to other map text.
 4. Symbology showing R-Code extent within land use areas should follow Appendix 1 guidelines.

4.4.2 Dwelling density targets

This section should be read with the *Draft Guidelines*. Dwelling density target information is required for district and activity centre structure plan maps (i.e. geospatial data).

Dwelling density targets should be indicated on maps by labels or textual information in the legend or map area. Geospatial data for dwelling density targets should adopt the following formats:

1. Shapefile and geodatabase textual format should consist of either:
 - an additional attribute for a polygon feature for a given land use category or zone;
 - part of feature-linked annotation;
 - part of a separate additional Shapefile or feature class (polygon geometry) with an appropriate dwelling density target attribute or field.
2. Free floating graphics are not accepted.
3. CAD data submissions showing dwelling density target extents or boundaries should be polygons and/or closed shapes. Dwelling density target labels should be placed on a separate layer to other labelled text.

4.5 Additional data

Supplementary maps with geospatial data should be submitted separately in a digital file or folder to the primary geospatial and digital documents.

If datasets used in additional maps cannot be submitted, a separate digital copy of the map in PDF format should be provided, together with relevant metadata for datasets used in the map. Metadata should indicate dataset title, source, date, custodian and other relevant information (refer sections 4.2 and 5).

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5. Mapping standards

This section provides mapping and symbology standards for structure plans. It should be read with sections 6 and 7 of the *Draft Guidelines*. Maps in sections 6 and 7 of the *Draft Guidelines* and Appendix 4 of the *Standards* are to be used as examples only.

Maps in structure plans should:

1. show the map revision number (in the map title or information section);
2. avoid annotation unless absolutely necessary (e.g. for R-Codes, density targets or if the area is subject to further investigation);
3. show residential density targets (district and activity centre structure plans) in the legend and/or map area; and
4. show R-Codes (local structure plans) in the legend and/or map area.

The revision number for the first map submitted should be ‘Revision 0’. Numbers are required for all subsequent revisions made to maps – both before and after approval of the structure plan.

5.1 Map production guide

The map production guide has been adapted from the *Local Government Spatial Information Management Toolkit V2.0*⁵.

Mandatory requirements are:

- Title (structure plan title or name);
- Map creator (the name of the publisher or authors, date of publication);
- Copyright (where applicable, provide a statement indicating the organisation or individual who holds the map copyright);
- Acknowledgements and Sources (a brief summary of the origin and all sources of map data, including derived or interpreted data. It should also detail data currency);
- Scale (include a metric scale bar with standard scale ranges. Scale ratio, (e.g. 1:10,000 is optional);

⁵ Available online at <http://www.alga.asn.au/policy/infotech/spatialinfotoolkit/>

- Legend (this should clearly depict all map symbols used with appropriate descriptions);
- Projection and Datum (indicate coordinate system information, e.g. datum and projection);
- North Arrow (this should be in the legend area. ‘N’ and an arrow is preferred).
- Contact (contact details for map or data information);

Optional requirements are:

- Additional Text, Figures, Illustrations, Charts and Graphs (only if necessary);
- Inset/Locality Maps (should be clear and not interfere or detract from the map’s purpose);
- Disclaimers (if applicable).

Appendix 3 provides a checklist of mandatory and optional requirements for submission of digital data.

5.2 Styles and symbols

Appendices 1 and 2 provide the standards for mapping styles and symbols used in district, local and activity centre structure plans.

6. Modifications

If modifications to the structure plan are submitted, geospatial data and maps must conform to specifications listed in the *Standards and Draft Guidelines*.

In the event of boundary and/or internal land use modifications, the entire structure plan should be re-submitted. Geospatial data or maps only showing the extent of the modified area(s) must not be submitted. Areas of modified land use should be highlighted with an additional boundary (or identifier of the applicant's choice) and shown in the legend and provided as geospatial data.

Modified structure plans should always use the file title of the original structure plan.

Additional maps may be submitted, but the official or final structure plan map for any modification must show the original boundary.

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7. Submission and acceptance of non-conforming data

Structure plan digital data files that do not meet criteria set out in the *Standards* and its appendices will be deemed unacceptable⁶.

Applicants will be formally advised of non-compliance by letter, which will list any changes to be made. Progress of the structure plan application will continue once criteria for submission are met.

Appendix 3 provides a checklist to aid submission of digital data in a structure plan. The checklist may be included in the application file.

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⁶ The Department is aware of a degree of loss or alteration in symbology or style in converting from MapInfo files to Shapefiles. These files will be accepted, provided this is indicated in the submission (either in a Word document or similar) that the spatial data conforms to all other standards outlined in the Standards.

8. Summary

The *Standards* and *Draft Guidelines* have both been developed to guide submission of structure plans to the Department of Planning.

The *Standards* provide a specification for digital and geospatial data, including mapping, land use categories, metadata, coordinate systems and symbology used in the structure plan.

The *Standards* will ensure such data is consistent, integrated, accountable and manageable.

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9. Contacts and further information

For further information on this document (including the appendices and associated documents) please contact:

Geospatial Information Coordinator
Mapping and Geospatial Data
Department of Planning
Level 2, 140 William St, Perth WA 6000
www.planning.wa.gov.au

Telephone: (08) 6551 9000
Fax: (08) 6551 9001
Email: mapping@planning.wa.gov.au

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10. Glossary

ArcGIS	Geographic information system software.
Attribute	Non-spatial information about a geographic feature in a GIS, usually stored in a table and linked to the feature by a unique identifier. For example, attributes of a river might include its name, length, and annual average flow.
CMYK	'Cyan Magenta Yellow BlacK'. A subtractive colour model that absorbs (subtracts) light from paper in colour printing.
CAD files	Computer Aided Design files, which include AutoCAD and Microstation files. File extensions are .dwg, .dxf, .dgn and .stl.
Digital documents	Documents such as reports, spreadsheets, graphs and drawings in electronic format which can be viewed on computer or similar device, and managed by electronic software.
ESRI	Environmental Systems Research Institute.
Geospatial data	Geographic spatial data used to show location and spatial dimensions. Such data is in electronic format viewed on computer or similar device, and managed by electronic software.
HEX	'Hexadecimal'. It refers to a 16 character numbering system to define colours on web pages. It uses numbers 0–9 and letters A–F.
Personal or Geodatabase file	Collection of geographic datasets used in ArcGIS and managed in a file folder or database. It is the native data source for ArcGIS and used for editing and data automation in ArcGIS.
Polygon	A closed shape defined by a connected sequence of x,y coordinate pairs
Raster	Pixel data used in GIS organised into grids where each cell contains information representing a value (e.g. temperature). Examples are aerial photographs, satellite imagery, scanned maps and digital pictures.
R-Code	Residential Design Codes.
RGB	'Red Green Blue'. An additive colour model in contrast to CMYK used as the colour system for computer and television screens.
Shapefile	A simple, non-topological format for storing geometric location and attribute information of geographic features in vector data format. Geographic features in a Shapefile can be shown by points, lines, or polygons (areas). File extensions are .shp, .shx and .dbf.
Vectors	Geometric shapes such as points, lines or polygons used to show geospatial features and their attributes, and subject to topology rules.

References

Draft Structure Plan Preparation Guidelines, the Department of Planning (2011).

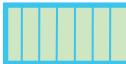
Local Government Spatial Information Toolkit (Version 2.0), Australian Local Government Association and ANZLIC – Spatial Information Council (July 2007).

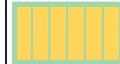
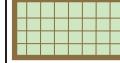
Standard technical requirements for LEP maps (Version 1.2), NSW Government and Department of Planning (March 2009).

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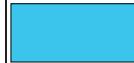
Appendix 1 – Structure plan mapping standards for district, local and activity centre structure plans

Zoning categories / land use	Description	Zones/land use	Includes
Residential	<p>Any residential zone/land uses.</p> <p>Any zoning containing a residential density code such as R5, R40, R60 etc.</p> <p>Lot sizes up to 2999m²</p>	General single residential	Aboriginal communities Canal/canal development Future residential Future urban Infill residential Ongoing development of residential estate Proposed residential Residence Residential (> R2.5) Residential allotments Residential deferred Residential development/development zone Residential uses Residential vacant land Single residential Urban development zone Urban deferred
		Multiple/grouped residential	Duplex residential Extensive residential Group residential Infill residential Multi-storey residential development Residential future grouped dwellings Survey strata residential Residential strata Residential units Residential villas
		Non private dwelling	Aged care Aged persons Boarding/ student housing Residential – aged care Residential & nursing home Residential - students

Zoning categories / land use	Description	Zones/land use	Includes
			Retirement village Workers accommodation
 Special residential	<i>The purpose of special residential zones is to allow for lots of a size which will offer a style of spacious living at densities lower than those characteristic of traditional single residential developments but higher than those found in special rural zones.</i> <i>Lot sizes of 2000 m² – 1ha.</i>	 Special residential	Special residential subdivision Special residential R2.5
 Rural	<i>Land uses/ zone in which a range of agricultural, extractive and conservation uses are undertaken.</i> <i>Lot sizes of 40ha or more.</i>	 Agriculture	Agriculture protection Broadacre farming Cluster farm Cropping Farming homestead lot General farming Grouped farming Homestead lot Mixed farming Rural – land exchange Rural development Rural enterprises Rural uses Rural zone Strategic agriculture
		 Rural – conservation/ landscape	General farming scenic Landscape or landscape protection (larger lots) Rural conservation Rural farming & catchment protection Rural groundwater protection Rural resource & rural water resource
		 Intensive rural – irrigation/ horticulture	Fruit growing Horticulture Intensive agriculture/ residential Market gardening Olive orchard

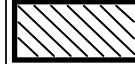
Zoning categories / land use	Description	Zones/land use	Includes
			Residential with horticultural Viticulture – vine growing Swan Valley Rural – vineyards
		 Livestock/ pastoral	Aquaculture Grazing General farming pastoral Horse stud & grazing Equine Pastoral Sheep & cattle Poultry farm Piggery
		 Timber resources	Forestry Pine plantation Plantation
		 Mining	Basic raw materials Mining
 Rural residential	<p>Land used for residential purposes in a rural setting which provides for alternative residential lifestyle and which seeks to preserve the amenity of such areas and control land use impacts.</p> <p>Lot sizes of 1-4ha.</p>	 Rural residential	Kennels Rural community Rural lifestyle Rural living Rural pursuits/ rural retreat Rural residential
 Rural small holdings	<p>Land used for minor rural pursuits, hobby farm, conservation lots and alternative residential life style purposes where part-time income from cottage industries, home occupation and use of the land for agriculture may be derived.</p> <p>Lot sizes of 4-40ha.</p>	 Rural small holdings	Farmlet Hobby farm Kennels Landscape (smaller lots) Residential bushland Rural landscape living Rural landscape protection (smaller lots) Rural small holdings
 Industrial	<p>Land use/ zone in which manufacture, processing, warehousing and related activities</p>	 General industry	Future industry Industry/ industrial Industrial development zone

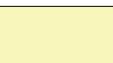
Zoning categories / land use	Description	Zones/land use	Includes
	<i>are undertaken. Lot sizes of 2000m² – several ha.</i>	 Light/ service industry  Heavy/ noxious industry  Special industry  Port industry  Airport industry  Industrial investigation	Business/service industrial Light industry Service industry Extractive industry Heavy industry Mining Noxious industry Special industrial Port industry Airport industry Industrial investigation
 Commercial	<i>Land use for purchase, hire or sale of goods or services.</i>	 General commercial  Commercial - child care  Commercial - medical centre	Business local Car sale premises Car park/commercial Central business district Commercial deferred Commercial development Commercial store Commercial units General commercial Other commercial Proposed commercial lots Restricted business Child care Medical centre Professional medical services

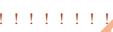
Zoning categories / land use	Description	Zones/land use	Includes
		 Commercial - service  Offices  Retail  Showrooms/ warehousing  Employment	Fast food outlet Restaurant Service commercial Service station Offices Local shopping Regional shopping Retail Shopping Commercial/ storage Showroom/ bulky goods development Showroom/ warehouse Employment node/centres
 Mixed use	<i>Land uses that contain commercial and other non-residential uses in conjunction with residential dwellings in a multiple dwelling configuration.</i>	 Mixed use – industrial/ commercial  Mixed use – retail/ commercial  Mixed use – residential/ commercial  Strategic regional centre  Secondary centre	Mixed business zone Mixed industrial/ commercial Mixed retail/ commercial Mixed residential/ commercial Mixed business/residential Home based business Strategic regional centre Strategic metropolitan centre Secondary centre

Zoning categories / land use	Description	Zones/land use	Includes
		District Centre	District centre
		Specialised Centre	Specialised centre
		Neighbourhood/local centre	Local centre Neighbourhood centre
Public purpose	<i>Land uses/reserves for public facilities such as hospitals, high schools, universities, car parks, and prisons, utilities for electricity and water, commonwealth government and other special uses.</i>	Community facility	Library Museum Public access Public amusement Race course Religious purposes Towns Hall Town square Waterfront revitalisation Police station Fire station Post office
		Education/institutional	Child care Schools Tertiary education sites/institutions Pre-school Kindergarten
		Hospital/medical	Hospital Nursing home
		Prison (non-private dwelling)	Prison Detention centre
		Technology park	Technology park

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Zoning categories / land use	Description	Zones/land use	Includes
		 Utilities/infrastructure	Airport Public assembly Public rubbish tip Power station Sewerage pumping station Transport/ freight Dept of Transport Fremantle Port Authority Telstra Water Corporation Western Power
		 Car parking	Car parking
 Park, recreation & conservation	<i>Land uses/ reserves of regional significance for ecological, recreation or landscape purposes.</i>	 Bush Forever	Bush Forever area
		 Conservation	Conservation park Conservation zone Flora or fauna protection Foreshore or dune protection Groundwater protection Landscape protection National park Natural reserve Ecological linkages
		 Drainage	District drainage Drainage Regional drainage
		 Parks & recreation	Recreation Park
		 Public/district/local/regional open space	District open space Local open space Regional open space Public open space
		 State forest	State forest

Zoning categories / land use	Description	Zones/land use	Includes
		 Beach	Beach
		 Wetland	Wetland
 Civic & cultural	<i>Significant civic precincts and buildings.</i>	 Aboriginal uses	Aboriginal reserve
		 Civic	Civic purpose Court Council uses Parliament house
		 Private clubs & institutions	Private clubs and institutions Private recreation (MRS) Race course Private golf course
 Tourism	<i>Any tourism related activities/ uses.</i>	 Caravan park (non private dwelling)	Caravan park
		 Tourist accommodation (non private dwelling)	Bed & Breakfast Hotel/motel Resorts
 Special Use	<i>Significant special land uses, not clearly falling within any other category.</i>	 Special use	

 Road (polygon)		 Primary distributor road (polygon)	Freeway
 Road (line)		 Primary regional road (line)	Highway (four & six-lane road) Primary distributor road
		 District distributor integrator A (polygon)	District distributor road A
		 District distributor integrator A (line)	Four-lane arterial
		 District distributor integrator B (polygon)	District distributor road B
		 District distributor integrator B (line)	Two-lane arterial
		 Neighbourhood connector (polygon)	Local distributor road
		 Neighbourhood connector (line)	Neighbourhood connector Two-lane street
		 Access street (polygon)	Access street
		 Access street (line)	Local road
		 Main street (polygon)	Main street
		 Main street (line)	
 Railway (polygon)	<i>Provides for public transit routes, freight rail lines and associated facilities such as park'n'ride stations, maintenance depots and marshalling yards.</i>	 Railway (polygon)	Railway
 Railway (line)		 Railway (line)	Railway reserve Passenger rail Freight rail
 Bus route	Public bus transport routes.	 Bus route	Bus lane Bus route
 Pathway	<i>Pedestrian and/ or cycling paths.</i>	 Pathway – dual use	Pathway – dual use
		 Pathway – pedestrian	Pathway – pedestrian
 Waterway (polygon)	<i>Permanent inland and coastal waters including many rivers and reservoirs.</i>	 Waterway (polygon)	Dam
 Waterway (line)		 Waterway (line)	Lake Ocean River Watercourses

Additional Information	Description
	<i>Extent / Boundary of Structure Plan area</i>
	<i>Extent / Boundary of precinct(s)</i>
	<i>Extent / Boundary of different R-code areas or density target areas</i>
	<i>Short term development time frame within the structure plan area. (specify time frame if possible)</i>
	<i>Medium term development time frame within the structure plan area. (specify time frame if possible)</i>
	<i>Long term development time frame within the structure plan area. (specify time frame if possible)</i>
	<i>Future investigation area / Subject to further investigation</i>
	<i>Walkable catchment area, usually circular in shape with centre on a facility, infrastructure or activity centre</i>
	<i>Walkable catchment area, usually circular in shape with centre on a facility, infrastructure or activity centre</i>
	<i>To indicate buffer areas (such as for wetlands, hardrock quarries, industrial/hazardous uses, pipelines, ground water, threatened species, power lines, etc.)</i>

Appendix 2 – Mapping standards style template

Polygons

Note:

Extra information on specifications for dash types and line types are provided as a guide for CAD environments to assist in the construction of non-standard line types. ESRI users may also use the specifications if needed. The line types were originally derived from an ESRI environment and generally have not been altered from system provided defaults.

Zones/ zoning categories	polygon colour							outline colour							outline width	outline dash type	hatching colour							hatching line widths	hatching line angle	hatching line separation														
	R	G	B	C	M	Y	K	HEX code	R	G	B	C	M	Y	K	HEX code	R	G	B	C	M	Y	K	HEX code	widths are in points	underlined numbers indicate dash line length in points, non-underlined numbers indicate interval length in points														
Residential	255	222	179	0	13	30	0	FFDEB3	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-												
General single residential	227	177	111	11	31	56	0	E3B16F	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-												
Multiple/ grouped residential	222	122	97	13	52	62	0	DE7A61	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-												
Non private dwelling	143	90	79	44	65	69	0	8F5A4F	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-												
Special residential	255	222	179	0	13	30	0	FFDEB3	255	0	0	0	100	100	0	FF0000	2	-	-	-	-	-	-	-	-	-	-	-												
Rural	201	255	201	21	0	21	0	C9FFC9	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-												
Agriculture	201	255	201	21	0	21	0	C9FFC9	255	214	92	21	0	21	0	FFD65C	2	-	-	-	-	-	-	-	-	255	214	92	21	0	FFD65C	1	90	3.6						
Rural - conservation/ landscape	201	255	201	21	0	21	0	C9FFC9	51	199	240	80	22	6	0	33C7F0	2	-	-	-	-	-	-	-	-	51	199	240	80	22	6	0	33C7F0	1	90	3.6				
Rural - irrigation/ horticulture	201	255	201	21	0	21	0	C9FFC9	255	110	0	0	57	100	0	FF6E00	2	-	-	-	-	-	-	-	-	255	110	0	0	57	100	0	FF6E00	1	90	3.6				
Livestock/ pastoral	255	214	92	21	0	21	0	FFD65C	153	237	179	40	7	30	0	99EDB3	2	-	-	-	-	-	-	-	-	153	237	179	40	7	30	0	99EDB3	1	90	3.6				
Timber resource	201	255	201	21	0	21	0	C9FFC9	137	112	68	46	56	73	0	897044	2	-	-	-	-	-	-	-	-	137	112	68	46	56	73	0	897044	1	vertical, 0 for ho	3.6				
Mining	201	255	201	21	0	21	0	C9FFC9	191	128	255	25	50	0	0	BF80FF	2	-	-	-	-	-	-	-	-	191	128	255	25	50	0	0	BF80FF	1	90	3.6				
Rural residential	201	255	201	21	0	21	0	C9FFC9	255	222	179	0	13	30	0	FFDEB3	2	-	-	-	-	-	-	-	-	255	222	179	0	13	30	0	FFDEB3	1	45	3.6				
Rural smallholdings	201	255	201	21	0	21	0	C9FFC9	43	255	43	83	0	83	0	2BFF2B	2	-	-	-	-	-	-	-	-	43	255	43	83	0	83	0	2BFF2B	1	45	3.6				
Industrial	191	128	255	25	50	0	0	BF80FF	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
General industry	191	128	255	25	50	0	0	BF80FF	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Light/ service industry	240	97	240	6	62	6	0	F061F0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Heavy/ noxious industry	143	0	237	44	100	7	0	8F00ED	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Special industry	191	128	255	25	50	0	0	BF80FF	255	0	0	0	100	100	0	FF0000	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Port industry	204	204	204	20	20	20	0	CCCCCC	143	0	237	44	100	7	0	8F00ED	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Airport industry	191	128	255	25	50	0	0	BF80FF	255	255	76	0	0	70	0	FFFF4C	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Industrial investigation	255	255	255	0	0	0	0	FFFFFF	143	0	237	44	100	7	0	BF00ED	2	-	-	-	-	-	-	-	-	143	0	237	44	100	7	0	8F00ED	1	vertical, 0 for ho	3.6				
Commercial	167	255	255	70	0	0	0	4CFFFF	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
General commercial	167	255	255	70	0	0	0	4CFFFF	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Commercial - child care	167	255	255	70	0	0	0	4CFFFF	255	255	76	0	0	70	0	FFFF4C	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Commercial - medical	167	255	255	70	0	0	0	4CFFFF	255	0	0	0	100	100	0	FF0000	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Commercial - service	167	255	255	70	0	0	0	4CFFFF	240	97	240	6	62	6	0	F061F0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Offices	167	255	255	70	0	0	0	4CFFFF	168	112	0	34	56	100	0	A87000	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Retail shopping	167	255	255	70	0	0	0	4CFFFF	0	82	255	100	68	0	0	0052FF	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Showrooms/ warehousing	167	255	255	70	0	0	0	4CFFFF	0	0	0	0	0	0	100	000000	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Employment	167	255	255	70	0	0	0	4CFFFF	0	72	31	100	72	88	0	00481F	2	-	-	-	-	-	-	-	-	0	72	31	100	72	88	0	00481F	1	45	3.6				
Mixed use	51	199	240	80	22	6	0	33C7F0	240	97	240	6	62	6	0	F061F0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Strategic regional centre	51	199	240	80	22	6	0	33C7F0	153	51	0	40	80	100	0	F061F0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Secondary centre	51	199	240	80	22	6	0	33C7F0	255	102	0	0	60	100	0	993300	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
District centre	51	199	240	80	22	6	0	33C7F0	0	82	255	100	68	0	0	FF6600	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Specialised centre	51	199	240	80	22	6	0	33C7F0	255	204	0	0	20	100	0	C7F050	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Neighbourhood/ local centre	51	199	240	80	22	6	0	33C7F0	191	128	255	25	50	0	0	FFCC00	2	-	-	-	-	-	-	-	-	191	128	255	25	50	0	0	BF80FF	1	45	3.6				
Mixed use - industrial/ commercial	51	199	240	80	22	6	0	33C7F0	0	82	255	100	68	0	0	0052FF	2	-	-	-	-	-	-	-	-	0	82	255	100	68	0	0	0052FF	1	45	3.6				
Mixed use - retail/ commercial	51	199	240	80	22	6	0	33C7F0	255	222	179	0	13	30	0	FFDEB3	2	-	-	-	-	-	-	-	-	255	222	179	0	13	30	0	FFDEB3	1	45	3.6				
Mixed use - residential/ commercial	51	199	240	80	22	6	0	33C7F0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(continued overleaf)

	polygon colour							outline colour							outline width	outline dash type							hatching colour							hatching line widths	hatching angle	hatching line separation							
	R	G	B	C	M	Y	K	R	G	B	C	M	Y	K	HEX code	R	G	B	C	M	Y	K	HEX code	widths are in points	underlined numbers indicate dash line length in points, non-underlined numbers indicate interval length in points	R	G	B	C	M	Y	K	HEX code	widths are in points	angles are in degrees	separation widths are in points			
Zones/ zoning categories	R	G	B	C	M	Y	K	R	G	B	C	M	Y	K	HEX code	R	G	B	C	M	Y	K	HEX code	widths are in points	underlined numbers indicate dash line length in points, non-underlined numbers indicate interval length in points	R	G	B	C	M	Y	K	HEX code	widths are in points	angles are in degrees	separation widths are in points			
Public purpose	255	255	76	0	0	70	0	FFFF4C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Community facilities	255	255	76	0	0	70	0	FFFF4C	255	110	0	0	57	100	0	FF6E00	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Education/ institutional	255	255	76	0	0	70	0	FFFF4C	0	132	168	100	48	34	0	008A48	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Hospital/ medical	255	255	76	0	0	70	0	FFFF4C	250	0	0	0	100	100	0	FA0000	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Prison	255	255	76	0	0	70	0	FFFF4C	199	51	51	22	80	80	0	C73333	1	-	-	-	-	-	-	-	-	199	51	51	22	80	80	0	C73333	1	90 for vertical, 0 for horizontal	3.6			
Technology park	178	178	178	0	0	0	30	B2B2B2	255	255	76	0	0	70	0	FFFF4C	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Utilities/ infrastructure	255	255	76	0	0	70	0	FFFF4C	178	178	178	0	0	0	30	B2B2B2	2	-	-	-	-	-	-	-	-	178	178	178	0	0	0	30	B2B2B2	1	135	3.6			
Car parking	178	178	178	0	0	0	30	B2B2B2	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Parks, recreation & conservation	43	255	43	83	0	83	0	2BFF2B	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Bush forever	255	255	255	0	0	0	0	FFFFFF	0	0	0	0	0	100	000000	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	135	3.6					
Conservation	209	255	115	18	0	83	0	D1FF73	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Drainage	43	255	43	83	0	83	0	2BFF2B	0	128	255	100	50	0	0	0080FF	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Parks & recreation	38	115	0	85	55	100	0	267300	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Public open space	43	255	43	83	0	83	0	2BFF2B	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
State forest	255	219	0	0	14	100	0	FFDB00	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Beach	253	251	185	5	2	27	0	FDFBB9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Wetland	209	255	115	18	0	83	0	D1FF73	0	82	255	100	68	0	0	0052FF	2	-	-	-	-	-	-	-	-	0	82	255	100	68	0	0	0052FF	1	135	3.6			
Civic & cultural	255	110	0	0	57	100	0	FF6E00	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Aboriginal uses	255	110	0	0	57	100	0	FF6E00	0	0	0	0	0	100	000000	2	-	-	-	-	-	-	-	-	0	0	0	0	0	0	100	000000	1	135	3.6				
Civic	255	110	0	0	57	100	0	FF6E00	255	255	76	0	0	70	0	FFFF4C	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Private clubs & institutions	153	255	51	40	0	80	0	99FF33	255	110	0	0	57	100	0	FF6E00	2	-	-	-	-	-	-	-	-	255	110	0	0	57	100	0	FF6E00	1	135	3.6			
Tourism	255	222	179	0	13	30	0	FFDEB3	51	199	240	80	22	6	0	33C7F0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	135	3.6			
Caravan park	205	137	102	20	46	60	0	CD8966	0	92	230	100	64	10	0	005CE6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Tourist accommodation	255	222	179	0	13	30	0	FFDEB3	76	255	255	70	0	0	0	4CFFFF	2	-	-	-	-	-	-	-	-	76	255	255	70	0	0	0	4CFFFF	-	-	-			
Roads	225	225	225	0	0	0	0	E1E1E1	0	0	0	0	0	100	000000	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Primary district road	255	0	0	0	100	100	0	FF0000	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
District distributor integrator A	0	92	230	100	64	10	0	005CE6	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
District distributor integrator B	197	0	255	23	100	0	0	C500FF	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Neighbourhood connector	255	200	0	0	22	100	0	FFC800	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Access street	225	225	225	0	0	0	0	E1E1E1	0	0	0	0	0	100	000000	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Main Street	-	-	-	-	-	-	-	-	255	255	0	0	0	100	0	FFFF00	2	-	-	-	-	-	-	-	-	255	255	0	0	0	100	0	FFFF00	1	45, 135	8			
Railway	178	178	178	0	0	0	30	B2B2B2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Waterway	219	255	255	14	0	0	0	DBFFFF	0	128	255	100	50	0	0	0080FF	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Structure Plan Boundary	-	-	-	-	-	-	-	-	0	0	0	0	0	100	000000	2	Dashed 6:1:2:1; Butt line caps; Miter line joins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Precinct Boundary	-	-	-	-	-	-	-	-	115	0	76	55	100	70	0	73004C	1.5	Dashed 6:1:2:1; Butt line caps; Miter line joins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R-code extent	-	-	-	-	-	-	-	-	0	0	0	0	0	100	000000	1.5	Dashed 1:1; Butt line caps; Round line joins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Short term development	-	-	-	-	-	-	-	-	230	0	0	10	100	100	0	E60000	2	Dashed 3:2; Round line caps; Round line joins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Medium term development	-	-	-	-	-	-	-	-	255	170	0	0	33	100	0	FFAA00	2	Dashed 3:2; Round line caps; Round line joins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Long term development	-	-	-	-	-	-	-	-	152	230	0	40	10	100	0	98E600	2	Dashed 3:2; Round line caps; Round line joins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Future investigation area	-	-	-	-	-	-	-	-	0	169	230	100	34	10	0	00A9E6	2	Dashed 3:2; Round line caps; Round line joins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Walkable Catchment - 400m	-	-	-	-	-	-	-	-	205	102	102	20	60	60	0	CD6666	2	Dashed 6:6; Square line caps, Round line joins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Walkable Catchment - 800m	-	-	-	-	-	-	-	-	130	130	130	0	0	0	49	828282	2	Dashed 6:6; Square line caps, Round line joins	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Buffers	-	-	-	-	-	-	-	-	255	0	0	0	100	100	0	FF0000</																							

Lines

Zones/ zoning categories	Line colour								Line width	Line specifications		Hashing/other line features
	R	G	B	C	M	Y	K	HEX code		widths are in points	Continuous line/dash specifications underlined numbers indicate dash line length in points, non-underlined numbers indicate interval length in points	
Roads	78	78	78	0	0	0	69	4E4E4E	2		Butt line caps, Round line joins	-
Primary regional road	255	0	0	0	100	100	0	FF0000	2.5		Butt line caps, Round line joins	-
District distributor integrator A	0	92	230	100	64	10	0	005CE6	2		Butt line caps, Round line joins	-
District distributor integrator B	197	0	255	23	100	0	0	C500FF	2		Butt line caps, Round line joins	-
Neighbourhood connector	255	200	0	0	22	100	0	FFC800	1.5		Butt line caps, Round line joins	-
Access street	225	225	225	0	0	0	0	E1E1E1	1.25		Butt line caps, Round line joins	-
Main street	255	255	0	0	0	100	0	FFFF00	3		Butt line caps, Round line joins	-
Railway	0	0	0	0	0	0	100	0	0.8		Butt line caps, Round line joins (ESRI style - "Railroad")	0.4pt width, at 90°, 1pt interval, 4pt length; Butt line caps, Miter line joins
Bus route	0	115	76	100	55	70	0	00734C	1.25		Dashed <u>3</u> :1; Butt line caps, Round line joins;	-
Pathway	255	127	127	0	50	50	0	FF7F7F	5		Butt line caps, Miter line joins; 1pt interval, circle radius 5pt	Circle shape: unicode 33 in ESRI Default Marker font, subset Basic Latin
Pathway - dual use	115	0	76	55	100	70	0	73004C	5		Butt line caps, Miter line joins; 1pt interval, circle radius 5pt	Circle shape: unicode 33 in ESRI Default Marker font, subset Basic Latin
Pathway - pedestrian	168	56	0	34	78	100	0	A83800	5		Butt line caps, Miter line joins; 1pt interval, circle radius 5pt	Circle shape: unicode 33 in ESRI Default Marker font, subset Basic Latin
Waterway	115	178	255	55	30	0	0	73B2FF	1.5		Dashed <u>7</u> :1: <u>1</u> :1; Butt line caps, Round line joins.	-

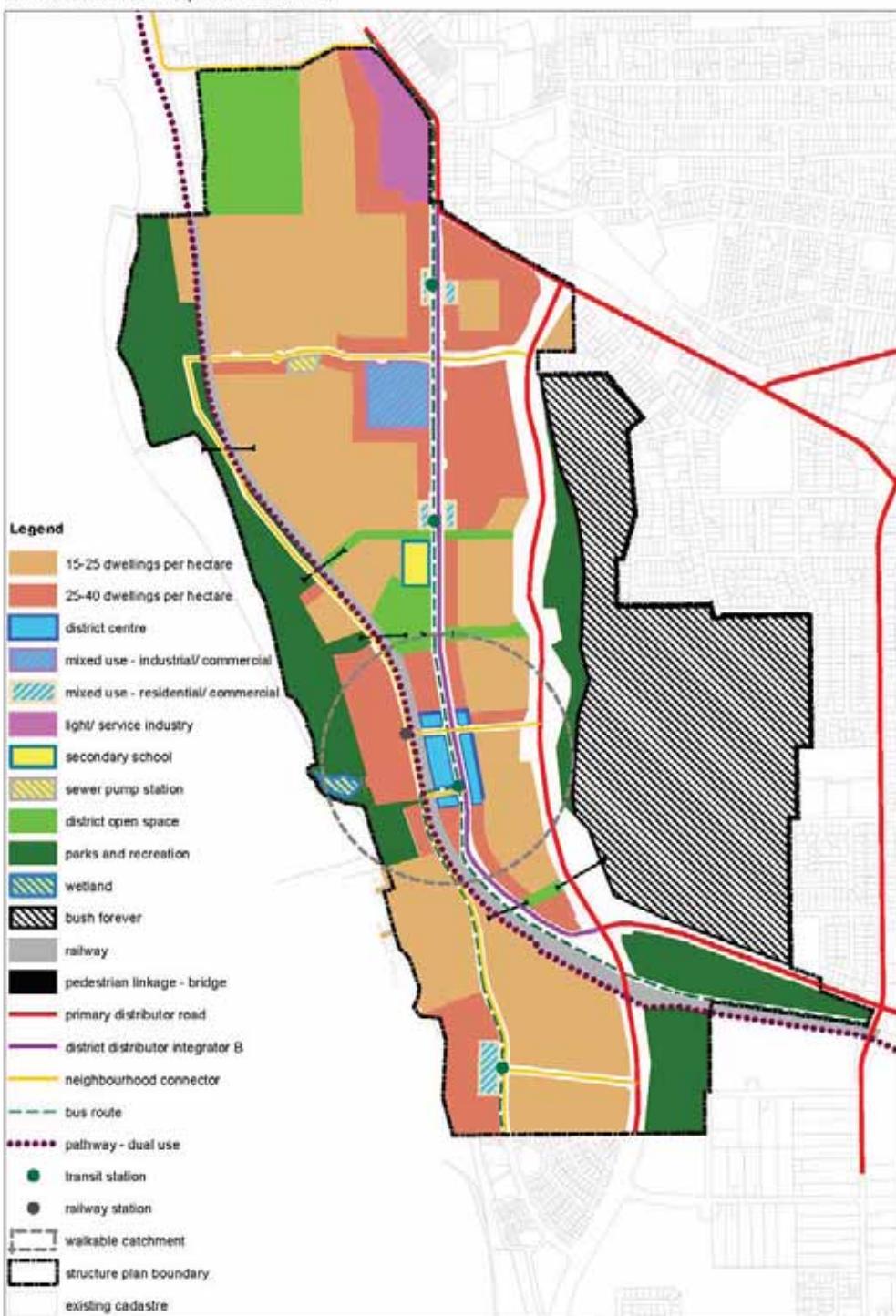
Appendix 3 – Structure plan digital data checklist

Structure Plan Title:			
Document/ File	Mandatory Standards	Optional Standards	Reference*
Digital Data			
<input type="checkbox"/> Structure plan report	<input type="checkbox"/> File type: PDF <input type="checkbox"/> Settings: Printing; content copying for accessibility; page extraction	File naming to include: Title; Version number; Date	Section 3.2 Section 3.2
<input type="checkbox"/> Structure plan map	<input type="checkbox"/> File type: PDF <input type="checkbox"/> Settings: Printing; content copying for accessibility; page extraction <input type="checkbox"/> Mapping standards adhered to Title Map creator Copyright (if applicable) Acknowledgements and sources Scale Legend Projection and datum North arrow Contact <input type="checkbox"/> Mapping symbologies adhered to	File naming to include: Title Version number Date Optional Mapping standards: Additional text; Figures; Illustrations; Charts, Graphs; Inset/locality maps Disclaimers	Section 3.2 Section 3.2 Section 5.0 Appendix 1, 2
<input type="checkbox"/> Other non-spatial supplementary files (optional)	<input type="checkbox"/> Windows OS format, Backwards-compatible; Security settings to allow printing, copying and saving.		Section 3.2
Spatial Data			
<input type="checkbox"/> Structure plan boundary	<input type="checkbox"/> Coordinate System: GCS_GDA94 (if projected, MGA Zones 49-52 as applicable) <input type="checkbox"/> File type: Shapefiles (.shp) OR File/personal geodatabases (.gdb, .mdb) OR CAD (.dwg, .dxf, .dgn) <input type="checkbox"/> Geometry: Polygon/closed shape <input type="checkbox"/> Metadata provided (as per metadata standards)	Feature datasets (for geodatabases) Attribute data	Section 4.1 Section 4.3 Section 4.3.1 Section 4.2 Section 4.1
<input type="checkbox"/> Land Use/zoning Classification	<input type="checkbox"/> Coordinate System: GCS_GDA94 (if projected, MGA Zones 49-52 as applicable) <input type="checkbox"/> File type: Shapefiles (.shp) OR File/personal geodatabases (.gdb, .mdb) OR CAD (.dwg, .dxf, .dgn) Geometry: Polygon/closed shape <input type="checkbox"/> Attributes: Land use/zone name <input type="checkbox"/> Labels: If Vector: must be from attribute values or annotation class (no graphics). If CAD: label text on separate layer <input type="checkbox"/> Metadata provided (as per Metadata standards)	Additional attributes such as R-Code labels.	Section 4.3 Section 4.3.1 Section 4.3.1 (b) Section 4.4 Section 4.2
<input type="checkbox"/> Metadata	<input type="checkbox"/> Fields completed: Title Abstract Purpose Citation Title, Originator, Publication Date Author/Data Custodian Data Source Spatial Reference Attribute explanation For CAD: level information.	Contact details; Time Period; Status; Keywords; Access constraints; Use constraints; Native dataset environment; Distribution information	Section 4.2
<input type="checkbox"/> Other spatial supplementary files (optional)	<input type="checkbox"/> File type: Either in accepted spatial formats (as per Standards) or as a PDF file. <input type="checkbox"/> Files to be placed in separate folder/directory to core spatial data. <input type="checkbox"/> Metadata provided as per metadata standards.		Section 4.5 Section 4.5 Section 4.2

*Refers to document *Structure Plans – Digital Data and Mapping Standards April 2011*

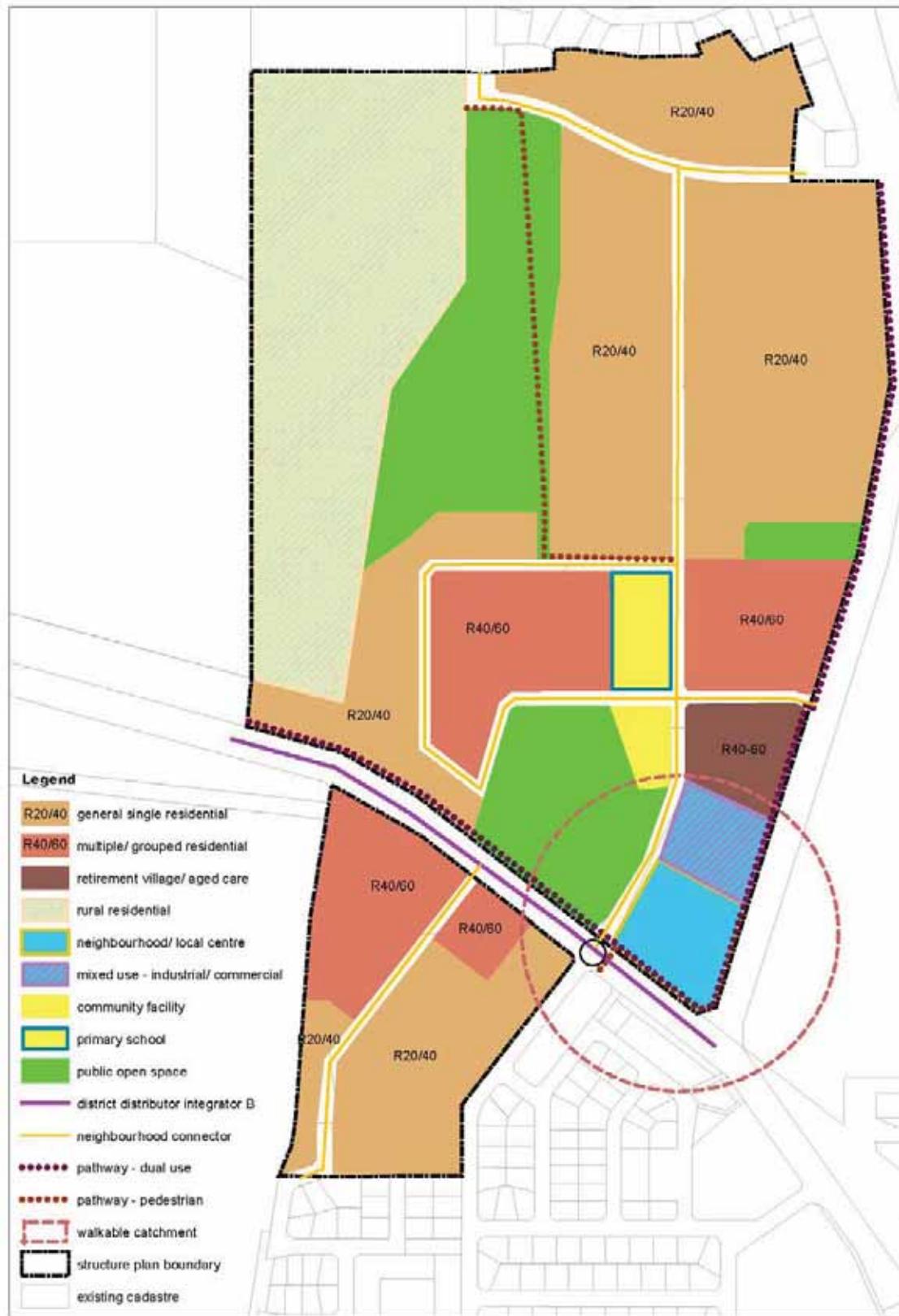
Appendix 4 – Examples of structure plan maps

Draft Structure Plan Preparation Guidelines



Example of District Structure Plan

Draft Structure Plan Preparation Guidelines

**Example of Local Structure Plan**

Draft Structure Plan Preparation Guidelines

**Example of Activity Centre Structure Plan***