Department of Planning

Western Australian Planning Commission

State Planning Policy 2.5

Rural Planning Guidelines

Version 3

December 2016

Prepared under Section 14(b)(ii) of the Planning and Development Act 2005 by the Western Australian Planning Commission

Rural Planning Guidelines

Version 3 December 2016

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Contents

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Background

State Planning Policy 2.5: Rural Planning (SPP 2.5) and *Development Control Policy 3.4: Subdivision of rural land* (DC 3.4) govern planning decision-making for rural land in Western Australia.

These Guidelines provide explanatory detail to assist the implementation of SPP 2.5 and DC 3.4 and explain the context of the policies. It is intended that these Guidelines will be reviewed regularly to ensure they reflect contemporary planning issues. Copies of Western Australian Planning Commission (WAPC) policies can be found online at www.planning.wa.gov.au/State-planning-framework.asp.

1.1 Application of these Guidelines

These Guidelines explain the intent and interpretation of SPP 2.5 and DC 3.4 and can be used in the preparation or review of regional schemes, regional strategies or frameworks, sub-regional strategies, local planning strategies and schemes, structure plans, other planning instruments such as local planning policies and any amendments to these documents. The Guidelines also include interpretation relevant to the subdivision of rural zoned land, for development proposals on rural zoned land and for rural land uses on land zoned for other purposes, in accordance with region and local scheme requirements. These Guidelines should be read in conjunction with SPP 2.5 and DC 3.4.

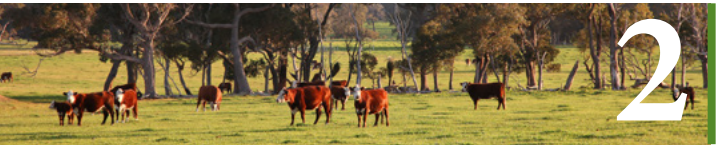
The WAPC has prepared fact sheets to assist planners in assessing development proposals for the following rural land uses: poultry farms, piggeries, and basic raw materials. The fact sheets can be found online at www.planning.wa.gov.au/ruralpolicies.

1.2 Relationship between State planning policies and local planning schemes and strategies

It is a legislative requirement for State planning policies to be applied in planning decision-making, including local planning strategies and schemes. It is a requirement of the *Planning and Development (Local Planning Schemes) Regulations 2015* for local planning strategies to apply relevant State and regional planning policy.

Local planning schemes are prepared under Part 3 of the *Planning and Development Act 2005* (the Act). Under s77 of the Act, all local planning schemes are to have due regard to State planning policies when being prepared or amended. State planning policies may be incorporated into schemes to provide the policy with the statutory effect of the scheme, as per s77(1)(b) of the Act. An existing example of this is inclusion of *State Planning Policy 3.1: Residential Design Codes* within schemes to date. Inclusion of a State planning policy in a scheme can occur at the initiative of the local government through the preparation, review or amendment of the scheme, or alternatively the Minister for Planning may order a local government to amend their scheme to be consistent with a State planning policy under s77A of the Act.

While WAPC decision-making should generally conform with scheme requirements, s138(3) of the Act outlines exceptional circumstances to vary scheme requirements, including where State planning policy may prevail over a scheme. It provides for the WAPC to approve a subdivision application that conflicts with a local planning scheme under certain circumstances. Similarly, local planning strategies and schemes may contain specific variations to State policy, where such variations have been approved by the WAPC.



Planning for rural land

2.1 What land uses can occur on rural land?

As established in SPP 2.5, rural zones are highly flexible and cater for a wide range of land uses including intensive and extensive agriculture, primary production, animal premises, basic raw material extraction, biodiversity conservation, natural resource management, tourism, regional facilities and public purposes including waste infrastructure. Rural zoned land may also contain land with significant environmental values, provide species habitat, have regional and local landscape values and carry a range of land management responsibilities for matters such as bushfire.

The flexibility of rural zones means that rural land can be a complex mix of uses, where the zoning of the land may not adequately reflect the range of land uses on the ground. This section discusses some of the issues that should be considered in planning for rural land.

2.2 Planning for rural land in a strategy or scheme

As rural land can accommodate a range of land uses, when a strategy is being prepared the major land uses in a local government area should be reflected. Consideration should be given to the location of:

- existing rural land uses that may require separation from proposed sensitive land uses such as intensive agriculture (e.g. orchards, vineyards), abattoirs, piggeries, poultry farms, waste infrastructure, airstrips, wastewater treatment plants, quarries or mine sites;
- remnant vegetation, waterways, wetlands or known environmental values (e.g. declared rare fauna, Carnaby's cockatoo habitat or Ramsar wetlands) that are on private land and therefore not reserved in the scheme; and
- known tourist developments or tourist land uses such as holiday houses and bed and breakfast accommodation.

Representation of a range of rural land uses within the scheme will need to be considered. In many cases a Rural zone will cover a range of land uses, however other zones such as Environmental Conservation or Landscape Protection (not reserves) can provide for private conservation and allow the scheme to better reflect existing land use.

For tourism uses, activities such as holiday houses and bed and breakfast accommodation can be considered where these are complementary and do not limit the agricultural use of the land, and are not impacted by rural land uses. Scheme provisions or local planning policies can be introduced to guide local government discretion for these types of proposals. The use of indicative separation distances in local planning strategies may also assist when considering tourist proposals.

The *Planning and Development (Local Planning Schemes) Regulations 2015* provides the standard zone names, objectives and legends that apply when reviewing or preparing a new scheme.

Matters to consider within a Rural zone include:

- potential land uses within the zone;
- objectives of the zone; and
- development requirements for the zone, such as:
  - controls to prevent buildings being located within buffers needed for existing agricultural and other primary production uses;
  - controls to prevent buildings being located close to roads or on ridge lines or other prominent sites;
  - controls to prevent buildings, particularly dwellings, being located in fire or flood prone areas, or areas of environmental sensitivity;
  - the number of dwellings per property needed for farming operations and if special controls are needed to manage the location of any subsequent dwellings; and
  - the use of re-purposed and second-hand dwellings.

These development requirements can be dealt with in Part 3 of the scheme (zone objectives and zoning table) and Part 4 (general development requirements).

Planning for priority agricultural land

3.1 What is priority agricultural land?

Priority agricultural land is land that is of State, regional or local significance for agricultural and/or food production purposes due to its comparative advantage in terms of soils, climate, water (rain or irrigation) and access to services. Primarily, priority agricultural land is where the State's food supply comes from, particularly fruit and vegetables. The identification of priority agricultural land is based on high-quality agricultural land data that has been subject to consultation and refinement, removing land required for existing and future urban/development areas, public use areas and land required for environmental purposes.

In order to implement State policy, priority agricultural land should be identified in strategies and schemes for that purpose. The following sections describe how this can be achieved.

3.2 Identifying priority agricultural land

If mapping of high quality agricultural land is available for a local government area, consideration should be given to land that may be needed for:

- existing and future urban/development areas;
- public purposes;
- reserved land; and
- environmental conservation such as remnant vegetation, species protection, rivers, landscapes, waterway foreshores and wetlands.

Figure 1 shows the general methodology for defining priority agriculture land. It is a simplified illustration and other planning matters will be important in identifying priority agricultural land, including access to markets, freight routes, and essential services.

State Agencies such as the Department of Agriculture and Food WA, the Department of Water and the Department of Parks and Wildlife may be able to assist with data required for high-quality agricultural land mapping. It is advised that these agencies are contacted in the first instance.

Comprehensive mapping of high-quality agricultural land is under preparation for Western Australia. However, published information on land resources and capability, climate and sources of water for irrigation may be used in the interim to help identify priority agricultural land.

Consultation with affected landowners is recommended. There are positive and negative connotations about land being identified as priority agriculture. On the one hand it might mean the property becomes more valuable as farmland; however, the landowner may have other plans

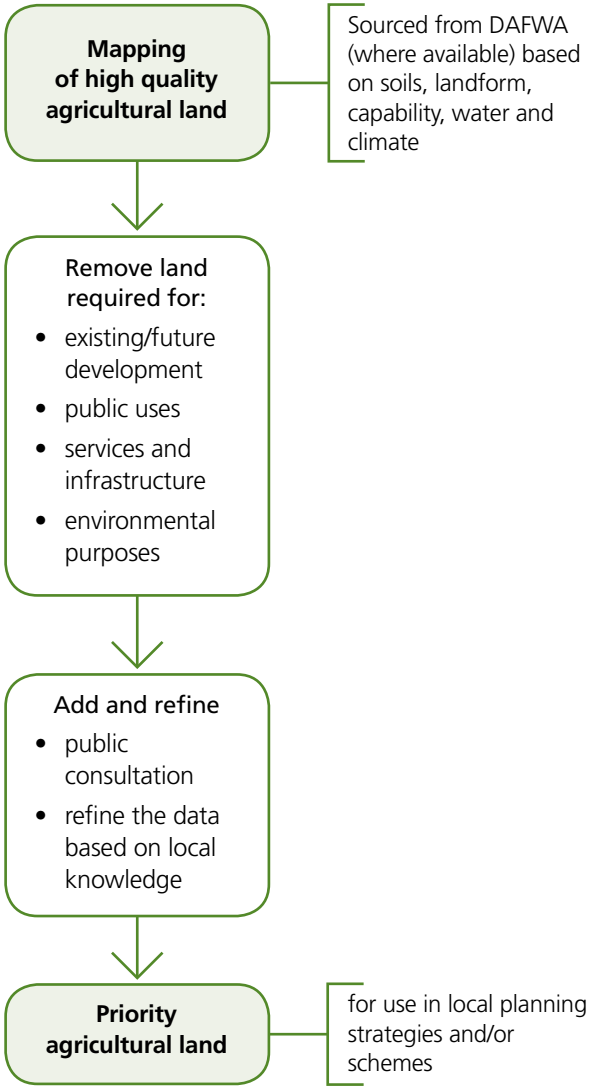


Figure 1: Method for determining priority agricultural land

for the property and designation as priority agriculture may affect those plans. The landowner may be able to provide more in-depth knowledge about the land.

3.3 Planning for priority agriculture in a strategy or scheme

The extent or relative significance of priority agricultural land needs to be addressed in a strategy or scheme. Consideration of the appropriate planning control to achieve the direction of the strategy and scheme will be necessary.

At a minimum, priority agricultural land, if identified, should be shown on the local planning strategy map. If the mapping has not been verified or tested, this should be indicated on the strategy map by using terms such as 'preliminary data, subject to verification and refinement' or similar. If the areas of priority agriculture are known and verified, a Priority Agriculture zone could be established in the scheme. This will provide the highest level of protection for this land, depending on the scheme provisions in use. A model zone is provided for in Schedule 1 of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

It is important to note that land not identified as priority agriculture may still be of significance or simply be unsuitable for development due to its remoteness from services. General rural land is also required for a range of existing and future rural uses such as forestry, broad acre farming, water catchment, environmental purposes, rural industry and related uses.

Matters to consider in a Priority Agriculture zone include:

- potential land uses within the zone;
- objectives of the zone; and
- development requirements for the zone, such as:
  - whether to permit sensitive land uses such as dwellings and tourist accommodation, particularly where intensive land uses exist or are proposed; and
  - the potential provision for additional dwelling(s) to provide accommodation for workers.

These requirements can be dealt with in Part 3 of the scheme (zone objectives and zoning table), and Part 4 (general development requirements).

Planning for rural living

SPP 2.5 defines rural living as a range of zones where the predominant land use is residential.

> *Rural living lots are not considered rural land uses – they are residential uses that need to be factored into settlement planning.*

4.1 Planning for rural living in a strategy or scheme

Clause 5.3 of SPP 2.5 establishes criteria for the planning and establishment of rural living estates. These criteria should be used for selecting sites where rural living estates may be developed.

Rural living estates generate a complex set of requirements and may often require studies and investigations related to the environment, water, service provision and land capability. When preparing a strategy, the key challenge is to select areas where this form of development may be appropriate, and to establish the circumstances in which an amendment can be consistent with SPP 2.5.

When considering rural living zones in a strategy or scheme, a range of matters need to be considered, taking into account both the objectives and intent of SPP 2.5 and *State Planning Policy 3: Urban Growth and Settlement* (SPP 3). Rural living estates can be resource intensive to service, with rubbish collection, the provision of community facilities, the management of fire fighting infrastructure and other maintenance costs being greater than traditional urban areas. These considerations should form part of a local government's Strategic Community Plan, which is required under the *Local Government (Administration) Regulations 1996*.

Planning options for rural living estates can include the progressive re-subdivision of estates into smaller lots or encouraging clustered rural villages. These options aim to ensure that servicing and community facilities are provided for.

4.2 Development standards

There are a number of ways to address development standards for rural living zones within schemes.

Some points to consider when developing standards for rural living estates include:

- lot sizes specific to an estate could be specified through a coded zoning, scheme provisions in Part 4, or a schedule;
- whether the rural living estate requires a structure plan to be prepared to ensure coordination of future subdivision and development;
- identification of investigations or studies that may be required prior to a scheme amendment being initiated, or at the first stage of subdivision; and
- amenity impacts of outbuildings, water tanks and ancillary uses.

4.3 Structure plans

When planning for rural areas it can be beneficial to have scheme provisions that allow the discretion to require structure planning for rural living zones. As many of these estates have developed in an ad-hoc way, local governments can find there is inadequate road planning, emergency access and egress, public open space or community facilities, resulting in rural living estates with limited amenity and access to services.

As such, preparation of structure plans to connect rural living estates may be required. Structure plans for rural living estates would still set out the information required by the deemed provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015* but would also need to consider:

- the type and scale of agricultural land uses or rural pursuits that should be permitted;
- minimum development standards (e.g. for repurposed and second-hand dwellings or the use of sea containers);
- regulations and guidelines on the keeping of animals;
- clearing, land management and environmental controls including nutrient export risk management;
- the identification of either a building envelope, or building exclusion area on each lot;
- the restriction of development to only one dwelling per lot;
- any scenic landscape and/or conservation attributes;
- bushfire risk, including a separate water supply for fire fighting. Note that areas of extreme bushfire risk should not be considered for rural living, in accordance with the requirements of *State Planning Policy 3.7: Planning in Bushfire Prone Areas*; and
- whether the land is seasonally inundated or within a floodplain (floodway or flood fringe).

4.4 Building envelopes or building exclusion zones

In rural living estates, building envelopes or building exclusion zones can be used to avoid areas such as bushfire risk areas, areas of biodiversity value, areas at risk of pesticide spray drift or areas subject to inundation. The building exclusion zones are best applied at the structure planning stage, as there is usually sufficient site information to locate them, and the requirement is clear and transparent through publication of the structure plan. The requirements can then be applied at subdivision and development stage. When building envelopes or building exclusion zones are being considered, thought should be given to matters such as whether:

- the development area is large enough to accommodate all buildings, including ancillary development and onsite waste disposal;
- the development area provides adequate land for development that is not impacted by:
  - seasonal inundation, a floodplain (floodway or flood fringe) or a drainage and/or flood flow path;
  - a waterway foreshore area and/or wetland buffer; and
  - a buffer from adjoining land uses, including agricultural land uses;
- the development area can provide adequate bushfire hazard separation where building envelopes can be located on predominantly cleared land;
- the topography (slopes, gullies, swamps) of the building area is suitable for development; and
- the development has the ability to obtain an appropriate level of servicing.

4.5 Addressing demand

There should be genuine demand for potential land uses in a local government area before land is allocated in strategies or initiated through a scheme amendment. Rural residential land should be guided by existing land supply and take-up, dwelling commencements, and population projections to help prevent development that is ad-hoc, isolated from amenities and difficult to service. To foster development that is achievable and desirable, the level of demand for desired land uses in the area needs to be investigated.

Matters to consider in relation to demand include:

- Is the projected demand based on evidence of actual use and development of the land? Consider monitoring annual building approvals to determine the actual level of development.
- Is the timeframe realistic based on lot creation and take-up in the area?
- Is the evidence based on a sufficient period of time to allow for fluctuations in demand?
- In keeping with SPP 3, whether settlement planning that incorporates a development 'footprint' or boundary may be an option?
- Have previous similar developments achieved a sufficient level of occupancy? An occupancy/development completion rate of approximately 60 percent for existing developments is suggested before new development is proposed.

Servicing

5.1 Water supply

As set out in SPP 2.5, a fit-for-purpose water supply for rural residential estates may be considered where a reticulated water supply is unavailable. Providing a fit-for-purpose water supply is about matching the water source and quality to the intended use.

Water can be supplied from a variety of sources other than a reticulated supply, such as superficial groundwater (water from aquifers), rain water, stormwater, treated wastewater and grey water. Water supplied from these sources is often only treated to non-potable standards, meaning it is not safe for human consumption and is therefore unsuitable for uses such as drinking, cooking, bathing, filling swimming pools and evaporative coolers and, in some cases, the watering of fruit and vegetables or fire fighting purposes. Grey water or wastewater may be used for purposes such as landscape irrigation, ornamental pond and fountain filling, toilet flushing or external taps for garden areas.

A licence is required if groundwater or surface water extraction is proposed and the development is within a proclaimed area under the *Rights in Water and Irrigation Act 1914*.

Matters to be considered in relation to the availability of fit-for-purpose water provision include:

- average annual rainfall and the capacity to capture water from roof catchments;
- water requirements for both inside and outside the home (**see Appendix 1**);
- contamination risk from accidental pesticide spray drift;
- availability of groundwater or surface water for outside use; and
- availability of water for fire fighting purposes.

As with urban development, proposals for rural living that are not sequential or which 'leapfrog' a serviceable development area may generate significant infrastructure costs. A 'leapfrog' proposal will cost more to service but this is not justification for fit-for-purpose servicing.

Where a fit-for-purpose water supply is intended for a potential rural living estate, the following should be considered:

- **'Inside' and 'outside' water supply** – inside water considers the water requirements inside a dwelling for purposes such as drinking, showers, toilets, washing machines, air conditioners and dishwashers. Outside water considers the water requirements outside the dwelling including for gardens, irrigation, fire fighting and leisure and stock purposes. In planning for new rural living estates, providing a reasonable level of amenity is a relevant consideration. The ability for landowners to have a garden, wash their cars, have a swimming pool or keep animals could be limited by inadequate water planning.
- **Reliable data** – rainfall data is easily sourced from the Bureau of Meteorology and projected rainfall quantity and variability may be available for particular areas from the Commonwealth Scientific and Industrial Research Organisation (CSIRO). Similarly, hydrology reports on groundwater and surface water and formal advice from agencies or organisations responsible to the Minister for Water could also be required.
- **Rainfall variability and reliability** – where rainfall is the sole source of domestic water, the variability of rainfall events needs to be considered, especially in the context of average monthly rainfall.
- **Climate change** – future rainfall projections and impacts arising from climate change may be obtained from projected rainfall patterns developed by the Bureau of Meteorology and the CSIRO. Advice may also be requested from the Department of Water on the likely impacts of future water availability.
- **Water carting** – water carting may be necessary in certain areas in times of drought. It is not considered to be a sustainable water supply as it is sourced from the State's water supply schemes and is not being planned for. There could also be instances where townsite standpipes may be locked and access restricted.
- **Proximity to agricultural land uses** – unforeseen circumstances such as sudden wind shifts may result in accidental spray drift from organic and conventional pesticides. Therefore, collection areas and water storages used for human consumption need to be located away from neighbouring agricultural properties.

- **Notifications on title** – notifications can advise prospective owners of a potential shortfall in domestic water supply where necessary. However, generally if there is insufficient water the subdivision and/or development may not be viable.
- **Scheme provisions** – if a certain roof catchment is required in order to capture sufficient rainwater, scheme controls may need to be established to mandate the overall roof catchment. As development approval is not generally required for a single dwelling, this may need to be inserted into the scheme. Consideration of the implications of requiring development approval for single dwellings, and the implications this may have on local government resources, the development industry and the community in general, will need to be assessed. Otherwise a prospective landowner may purchase a property while being unaware of the roof catchment size required for proposed development.

5.2 Network electricity supply

When considering electricity supply for rural and rural living subdivision applications it is WAPC policy that the type of electricity supply provided be commensurate with the intended land use. In most rural and rural living areas, the existing electricity connection is generally provided by overhead power line infrastructure (Figure 2). The landowner is responsible for ensuring that all power infrastructure (private overheard power lines or private power poles) on privately owned land is maintained in a manner that does not present a safety risk to occupants or adjacent properties. Further information on managing private power lines can be found in the Department of Commerce's *Guidelines for the Safe management of private power poles and lines* (2015) *and WA Electrical Requirements* (2014).

In considering applications for rural subdivision to create a homestead or conservation lot or boundary realignment, the WAPC may consider that an electricity supply condition is not warranted for the following reasons:

- a power supply may not be required to support the land use; or
- evidence has been provided to demonstrate that the existing electricity supply infrastructure meets the relevant safety requirements and is commensurate with the intended land use.

To demonstrate that the existing electricity supply infrastructure of a property meets the safety requirements, a landowner can arrange for an inspection of their electricity supply infrastructure by a licensed electrical contractor. Following the inspection, an electrical safety certificate can be provided to the landowner certifying that the electrical inspection carried out deems that the existing infrastructure is safe, and complies with the *Electricity (Licensing) Regulations 1991*. The certificate is generally provided within 28 days of the assessment.

To ensure that the appropriate matters are considered as part of an inspection of electrical infrastructure, the following should be addressed:

- an inspection of the incoming above ground consumer main;
- the condition and materials of the power poles;
- the condition of spreaders, cross arms and stays, conductors, insulators, hardware and fixings, connectors and joints in aerial conductors, cable supports and switchboards; and
- the vegetation clearance requirements.

It should be noted that a safety certificate is only applicable to internal electricity connections within privately owned land, for example ensuring that the electrical connection within a house is sound and sufficient for the intended use. Safety certificates produced under the *Electricity (Licensing) Regulations 1991* do not apply to Western Power network infrastructure.

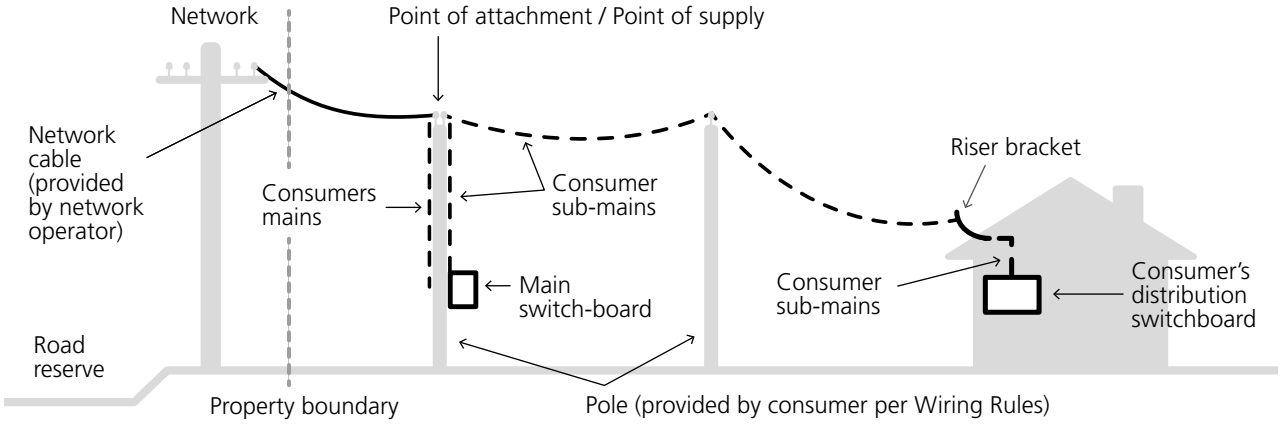


Figure 2: Overhead supply to a rural consumer (WA Electrical Requirements, 2014)

When completing a safety inspection of electricity infrastructure there should be two levels of assessment: one that assesses the private electrical installation downstream of the point of supply; and one on any network infrastructure upstream of the same point.

Further details can be found in *Guidelines for the Safe management of private power poles and lines* (2015).

5.3 Responsibilities for electricity supply

It is a landowner's responsibility to report a fault to electricity infrastructure in the following circumstances:

- no power, dim or fluctuating power, partial power;
- vegetation touching power lines; and
- vandalism.

It is the landowner's responsibility to ensure that tree branches on private land are kept at a safe distance from power lines. The minimum recommended safe clearance area between trees and power lines is approximately four metres in rural areas. Local governments and Western Power are responsible for maintaining trees and vegetation beyond the boundaries of private property, including those that are located on verges.

Private land owners may be required to supply, install and maintain electricity poles on their property, to support the operator's low voltage network cable, providing a point of attachment for supporting privately owned low voltage power lines. Section 4.6 of the *WA Electrical Requirements* (2015) provides for technical requirements with which the poles must comply.

Danger zone

A danger zone is defined as an area surrounding live electrical apparatus that people, equipment and materials must not enter or encroach on.

Figure 3 outlines the danger zone parameters as defined in Regulation 3.64 of the *Occupational Safety and Health Regulations 1996*.

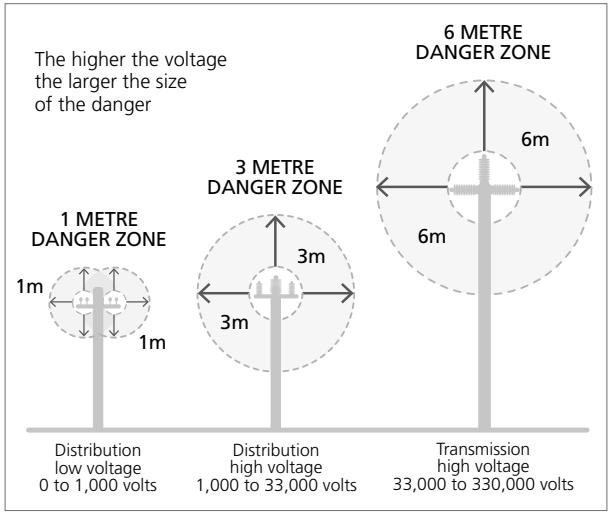


Figure 3: Danger zones near overhead power lines (Overhead network safety - Western Power, 2016)

For more information regarding danger zones or to report a fault to electricity infrastructure contact Western Power on 13 13 51.

Use of advice notes regarding danger zones

In cases where subdivision or development applications may encroach on danger zones, the WAPC may remind subdividers of their responsibilities to ensure that all materials, vegetation and persons not conflict with the requirements of the *Occupational Safety and Health Regulations 1996* in the form of an advice, such as:

> 'Where development and or existing vegetation has the potential to encroach upon a danger zone of any type of electricity power pole, measures must be taken to comply with the *Occupational Safety and Health Regulations 1996*, to ensure the appropriate distances from the power poles are maintained.'

5.4 Renewable energy sources

The use of renewable energy sources to power residential properties has become increasingly attractive to homeowners in rural areas due to the expense and challenges of connecting to a reticulated supply. SPP 2.5 allows for the use of renewable energy sources where a network connection is not available or an infrastructure upgrade is not commensurate with the scale of a proposal.

An 'off-grid' system, also known as a 'stand-alone power' system, could be utilised to service rural lots. The main components of a stand-alone power system are:

- renewable energy generation equipment, such as photovoltaic modules (solar panels), wind turbines, or 'hybrid' combinations of these;
- control and regulation equipment for battery charging and back-up power operation;
- energy storage such as batteries;

- inverters which convert electrical current so that common household appliances can be used; and
- a back-up electricity supply from either storage batteries and/or generators.

Any stand-alone power supply system must demonstrate that the energy generated through the renewable energy source/s is sufficient for the intended land use.

The use of diesel generators to power residential properties is not considered a renewable energy source as defined in SPP 2.5.

5.5 Impacts of climate change on rainwater assumptions

The CSIRO Climate Change in Australia - Technical Report (2015) (the report) shows that the south-west of Western Australia has experienced a substantial rainfall decline since 1975. In stark contrast, the north-west has experienced an increase in rainfall over this period. Recent droughts have become hotter with both the maximum and minimum temperatures higher than in previously recorded dry periods.

In some regions of the south-west, the decline in cool seasonal rainfall is as much as 40 percent over the past 50 years, with large decreases in runoff. However, there is significant variation in climate change forecasts. Depending on the model used, average precipitation change by 2030 in Australia's south-west region may vary from no change to a 15 percent decrease in precipitation. As an example, modelling suggests precipitation decline in the Wheatbelt town of Corrigin will be between nil and 36 percent. The report states that detailed climate change risk assessments generally require purpose-built climate projections.

Rural living precincts that envisage using rainwater as a water supply will need to take climate change into account and may need to conduct site specific modelling.

A copy of the report may be viewed at:
www.climatechangeinaustralia.gov.au/en

5.6 Road suitability

Consideration of proposals for rural land uses should include the suitability and capacity of the existing road network to handle the additional impacts created by the proposed land use. For example, when tree farms are harvested there is the potential for short-term impacts on local roads and road users. In this instance, when considering the potential location of a tree farm that will eventually be harvested, consideration should be given to the capacity of the local road network to handle the freight task.

The following should be considered:

- whether the existing road is of an appropriate standard and has the capacity to handle the additional impacts created by the proposal and whether the proposal will create safety concerns;
- an evaluation of the existing standard of the road, including determining average vehicle numbers per day, compared to the expected impacts of the proposal and implications for the road; and
- the classification of the road in the road hierarchy.

The planning decision-maker may determine that there is a need for the full or partial upgrading of a particular road, to ensure that the existing road network is adequate and of a standard to accommodate the additional traffic generated from the proposed land use. This would be applied as a condition of approval.

A Transport Report to justify the suitability of a road may be required to support a proposal. The report should address:

- details of the timing and amount (tonnage) of harvest;
- anticipated transport routes; and
- details of financial contributions towards upgrading/rehabilitation of the local and district road system.

Regional variation, economic opportunities and regional development

6.1 Regional variation

SPP 2.5 and DC 3.4 have a strong policy position that rural land should be retained for existing and future rural land uses. However, both policies reinforce the need for the planning system to accommodate regional variation, with exceptions to be demonstrated and expressed in strategies and schemes.

If there is a need to vary the application of State policy in the local government area, the local planning strategy and/or scheme need to demonstrate the need for the variation. This should also be supported by sound and verifiable evidence. Where the evidence is not planning-related, the Department of Planning will generally seek advice from other agencies with corresponding technical knowledge e.g. agriculture, environment or servicing. In seeking a variation, the following should be considered:

- Why is a variation required? Is it to accommodate a new or emerging rural industry or activity or is it due to the soil or climatic conditions?
- In what way is State policy seeking to be varied? Is it to deal with a site-specific matter to provide for specific development of a particular area or is it a blanket variation that could be applied across an entire local government area or region?
- What are the implications of varying State policy in the local government area? For instance, if additional rural subdivision is proposed, which could generate new dwellings, this would need to be considered as part of settlement planning considerations.
- If a variation is required, consider supplying information that:
  - explains the situation that differentiates it at a State or regional level;
  - compares the statistical circumstances of the local government area to state or regional averages; and
  - provides evidence from the proposed new industry that is verified by an agency with corresponding technical knowledge.

6.2 Rural Enterprise zone

Rural Enterprise zone, also known as composite lots or rural home business, is a zone that caters for both a home and a rural business and/or industrial land use on one lot. There is usually demand for these types of lots in country towns, as it enables a small business owner to establish a home and business on the same property.

The Rural Enterprise zone needs to be designed carefully to achieve reasonable separation between the residential and business activities and address amenity. Residents would need to accept some degree of nuisance from business operations therefore careful consideration of permitted land uses and the physical layout of the area should be undertaken.

Some critical considerations include:

- whether certain industrial land uses should be excluded from the estate;
- the hours of operation that will maintain a reasonable level of amenity for the area (this could rule out freight / transport business or those that operate 24 hours a day);
- the type of roads necessary to address amenity for the residential component and sufficient exposure for the businesses onsite;
- the provision of services and roads to cater for heavy vehicles; and
- the proximity of urban areas. The zone contains a residential component and therefore access to town facilities, such as retail, government services or recreational facilities, would be desirable.

Generally, the Rural Enterprise zone is anticipated to encompass light industry provisions with the additional ability to construct a single dwelling. When contemplating scheme provisions and policies for this zone, some matters to investigate are:

- the appropriate lot size. Lots are generally one to four hectares and correspond with a rural residential lot size. Local circumstances or demand may require variation in lot sizes;
- the level of services required for the development, in particular electricity and domestic water provision;
- the requirement for notification on title, to alert prospective owners of existing or future amenity issues;
- provisions to address potential land use conflicts with surrounding areas;

- provisions to protect the amenity of the area (visual, noise, smell, dust and/or pollution); and
- staging, in terms of the dwelling being ancillary to the industry e.g. no house without the industrial use.

6.3 Primary production and processing precincts

To promote economic development, primary production or processing precincts located on rural land may be a consideration for some local governments.

When identifying and justifying such precincts in a strategy, consideration should be given to:

- whether a proposal for a precinct is supported by industry trends or needs;
- the scale of the precinct - subject to local government priorities, these precincts are generally large scale, for rural activities, with no residential component;
- access to freight, rail, road, ports and airport linkages, depending on the scale and type of industry being contemplated;
- the servicing and access conditions – prior to site selection an indication of potential costs for the provision of services should be investigated;
- any potential risks or benefits associated with co-locating industries;
- relevant environmental matters, including adequate land for buffers; and
- strategies that may identify where additional studies are required.

When considering the inclusion of precincts into a scheme, consideration should be given to:

- the adequacy of scheme provisions and whether precincts should be designated as a Special Control Area under Part 5 of the scheme;
- the appropriate standards for servicing and access;
- the need for development contribution plans if shared infrastructure is required;
- the impact on the rural amenity of the area, including any impact on the landscape; and
- the inclusion of adequate measures to address impacts on sensitive land uses, such as separation distances which may be dependent on the specific production or processing industries proposed for the precinct; and
- potential cumulative impacts that may need to be planned for.

6.4 Animal premises

SPP 2.5 outlines the matters that need to be considered when assessing proposals for new animal premises, expansion of existing facilities, and development in the vicinity of these premises, and provides guidance on managing land use transition so that existing operators can continue to function and that new or existing residents have reasonable expectations.

SPP 2.5 discourages the location of large animal premises within State strategic industrial areas or their buffers, as these buffers are generally determined based on the extent of the cumulative offsite impacts of the fully developed industrial area. Any proposed animal premises within these buffer areas may generate its own offsite impacts, therefore resulting in an increased cumulative impact for the neighbouring land uses. This may in turn constrain the operations of the existing strategic industry, and/or any future planned development capacity of the industrial area itself.

Within the Metropolitan Region Scheme (MRS), Peel Region Scheme (PRS) and Greater Bunbury Region Scheme (GBRS) areas the WAPC seeks to ensure that poultry farm development is consistent with future planning. As provided in the WAPC's resolution under clause 32 of the MRS, clause 21 of the PRS and clause 27 of the GBRS, all applications for the development of new poultry farms, or any extension or addition in excess of 100 square metres to improvements of an existing farm, are to be referred to the WAPC for determination.

The development of animal premises that are of State or regional importance or otherwise in the public interest may also require approval under the MRS, PRS or GBRS.

For further information on animal premises, refer to the WAPC fact sheets for poultry farms and piggeries. These outline a range of land use planning considerations relevant to the establishment, expansion or modification of animal premises. Other useful resources for planners include industry environmental guidelines and industry codes of practice, and can be accessed on-line from the relevant industry body.

6.5 Intensive agriculture

Western Australia's horticultural industries are highly diverse, producing a variety of fruit, vegetables, nuts, herbs and spices, nursery products, turf, cut flowers and are supplied to the wholesale, retail and food service sectors. Horticultural industries make an important contribution to the State's prosperity, especially in providing food security, health and nutrition; and as a stimulus for regional economies.

Crops are grown throughout the year and farming activities generally occur during daylight hours - although packing may be undertaken in sheds at night. Some types of horticulture are highly intensive and often rely on irrigation, fertilisers and pesticides - which can significantly increase the quantity of nutrients, mainly phosphorus and nitrogen, entering groundwater, watercourses and wetlands. Conflicts relating to agricultural chemical spray drift, noise, dust and odour can arise between agricultural activities and sensitive land uses.

Some schemes designate 'Agriculture - intensive' within the Rural zone as a permitted ('P') use, with any relevant development standards or requirements outlined in the scheme. In other zones where 'Agriculture - intensive' is identified as a discretionary ('D' or 'A') use, consideration should be given to the following matters when preparing or assessing proposals:

- land capability and suitability for the proposed use;
- size of the operation;
- groundwater quality and availability;
- servicing including a water supply for irrigation;
- topography, drainage and flood risk;
- impact on watercourses, soaks and wetlands including nutrient export risk management;
- clearing of native vegetation;
- vehicle access requirements including onsite movements;
- landscaping requirements;
- potential cumulative impacts due to proximity to other farms generating similar impacts;
- biosecurity issues due to proximity to other farms; and
- storage and disposal of waste (for example, composting), crop residues or unsaleable produce waste.

Other land uses that can commonly occur on the same lot as an intensive agricultural development could include wineries, cellar door sales, rural/wayside stalls or rural produce stores. These are generally assessed as ancillary or separate land uses to the agricultural use.

6.6 Regional facilities

With growth pressures on major population centres such as Perth, Mandurah and Bunbury, adjoining rural areas may come under increased pressure to accommodate facilities for urban residents that require large land areas and/or separation distances. This could include land uses such as waste infrastructure, sporting or entertainment facilities, educational institutions, places of worship, prisons and cemeteries. In considering these types of uses it is imperative to consider the planning framework and Rural zone objectives, which may be critical in accommodating these uses. The capacity of a scheme to accommodate non-rural uses, including provision of appropriate buffer zones to manage potential conflicts with sensitive land uses, should be a key consideration. SPP 2.5 provides further guidance on the requirements for regional facilities.

6.7 Rural Smallholdings zone

The following matters should be considered when contemplating a Rural Smallholdings zone in the scheme:

- whether a separate zone is required to cater for this form of subdivision and the land uses within it;
- whether land uses such as home business, cottage industry, tourist and rural pursuits should be permitted in the zone;
- the keeping of animals;
- the protection of the environment and amenity;
- if potential conflict between primary producers and weekend hobby-farmers is likely, could the zoning table or development standards deal with this issue;
- should the estate have an identified rural lifestyle theme such as conservation lots, equestrian parks or permaculture estate; and
- the provision of a water supply for land management or 'outside' water supply.

Extractive industries

7.1 Mining

Western Australia is one of the most diverse mining resource regions in the world, with more than 50 different commodities being produced, including gold, iron ore, nickel and bauxite. Mining is an important primary industry and a major source of employment and contributor to Western Australia's economy, with more than 1,000 operating mine sites. The continuing importance of mining to the State's economy is recognised in the *State Planning Strategy 2050*.

Mining in Western Australia can occur under one of three different pieces of legislation:

1. *The Mining Act 1978* (Mining Act) is the principal statute governing the extraction of minerals in Western Australia, which applies to mineral exploration and mining operations. The Department of Mines and Petroleum (DMP), administers the granting of mining tenements.
2. State Agreement Acts. The Department of State Development administers these agreements; and
3. The Planning and Development 2005 Act. This applies to some minerals on privately owned land that was granted before 1 January 1899. This activity is normally administered by local governments under delegation from the WAPC.

Regardless of which legislation applies, all mining is subject to the provisions of the *Environmental Protection Act 1986*, the *Aboriginal Heritage Act 1972* and the *Mines Safety and Inspection Act 1994*.

Most mining activity involves relatively low impact exploration and is carried out in rural areas. Ongoing exploration is essential to the discovery of new deposits.

'Mining operations' means premises where mining operations, as that term is defined in the Mining Act, are carried out. This relates to activities of a mine site that occur on the mining tenement (extraction, removal of overburden, and processes such as crushing, leaching and evaporating which are necessary to extract minerals from the ground), including activities not contiguous to the site or directly part of a mining operation such as offsite workers accommodation. Under the Mining Act, mining operations normally occur within a special type of mining tenement called a mining lease, whereas supporting infrastructure may require a general purpose lease or miscellaneous licence. Refer to DMP's website for more information on mining tenements at: www.dmp.wa.gov.au/Minerals/Mining-Tenements-explained-5145.aspx. The grant of a mining tenement is a separate process to the approval of an exploration or mining proposal and the Environmental Protection Authority can intervene in the assessment of proposals.

'Minerals' are defined under the Mining Act as including all naturally occurring substances that are obtainable from the ground by mining operations carried out on or under the surface of the land. The Mining Act does not apply to petroleum products or the quarrying of limestone, gravel, shale, non-mineral sand or clay on private land, and these activities are dealt with under other statutes.

Generally minerals are the property of the State regardless of whether the minerals are on private land or Crown land. However, apart from gold, silver and precious metals, minerals which are within privately owned land that was granted before 1 January 1899 is in most instances, the property of the landowner. This is known as Minerals to Owner land. Most land that falls into this category is in the south-west of WA. In these circumstances the Mining Act has limited application and mining operations may require development approval under the relevant local planning scheme, in addition to environmental approval under the *Environmental Protection Act 1986*.

Section 120(1) of the Mining Act applies to the granting of all mining tenements, including exploration licences, and requires that the provisions of a local planning scheme affecting the use of the land concerned are to be taken into account when an application for granting of a mining tenement is to be considered.

Local government and Mineral to Owner land mining approvals

Where a local government has identified Minerals to Owner land that may be exempt from the Mining Act, provisions could be added to the local planning scheme that outline the local government's role in decision-making. In such instances, it is recommended that 'Mining Operations*' be inserted into the Zoning Table of a local planning scheme with the appropriate qualified designation of 'P*' (permitted), 'D*' (not permitted without local government discretion), 'A*' (not permitted without discretion and special notice) or 'X*' (not permitted). The '*' can then be annotated in the local planning scheme text as applying only to Mineral to Owner land. In some cases a local government may not consider the land use planning suitability of such a proposal until environmental approval has been granted, although approval processes frequently run in parallel.

Local government and WAPC input into *Mining Act 1978* approvals

Local government has the opportunity to lodge an objection to a mining tenement application heard by the Warden (s.42, 59, 70D, 75, 97A and r, 120A, 146 of the Mining Act). The Warden then makes a recommendation to the Minister for Mines and Petroleum regarding the grant and conditions for leases. Further assessment is also undertaken by DMP before a lease is granted.

Before mining operations can commence, a detailed mining proposal needs to be submitted to DMP for approval. Proposals need to address many matters, particularly those relating to environmental impact and management, to address stakeholder consultation. DMP expects that for significant proposed mining operations, extensive consultation would have already taken place with local government and the local community. DMP assesses mining proposals and monitors ongoing mining operations to ensure that they meet community safety and environmental standards. Depending on the potential environmental and community impact, DMP can refer a proposal to the Environmental Protection Authority for assessment under the *Environmental Protection Act 1986*.

Access to townsite land for any mining tenement activity is only possible after DMP has consulted with the Minister responsible for the administration of the *Land Administration Act 1997* and the local government, and obtained their recommendations.

As mentioned, section 120 of the Mining Act establishes a connection between mining and the *Planning and Development Act 2005*, such that the provisions of an operational planning scheme are to be taken into account, but the provisions of any such scheme are not to operate to prohibit or affect the granting of a mining tenement or the carrying out of mining operations authorised by the Mining Act.

Under sub-section 120(2) of the Mining Act, where an application for a mining lease, including general purpose leases, has been made and the local government or the WAPC consider that if granted the lease would authorise the carrying out of mining operations contrary to the provisions of a local planning scheme, they may inform the Ministers responsible for Mines and Petroleum and Planning of the incompatibility. The Minister for Mines and Petroleum must then consult with and obtain the recommendation of the Minister for Planning prior to finalising the application.

While some local planning schemes purport to prohibit mining, and designate mining operations as a non-permitted 'X' use, due to section 120 of the Mining Act this can only be enforced where the Mining Act does not apply, for instance, in the case of Minerals to Owner land. Where a local government seeks to 'trigger' consultation between the Ministers as outlined in section 120 of the Mining Act, 'Mining Operations' can be inserted into the Zoning Table of a local planning scheme and be designated as a discretionary 'D' use. This provides the local government with an avenue to advise the Ministers responsible for Planning and Mines and Petroleum when an application for granting a lease or authorising of mining operations may conflict with an operational local planning scheme. 'Mining Operations' should not be designated as an 'X' use in local planning schemes as this may create an expectation that the local government has the authority to approve or refuse all mining-related applications, and may establish an incorrect belief that mining cannot occur.

Although the capacity exists to invoke section 120 of the Mining Act, usually in those areas that have potentially incompatible sensitive land use zonings such as residential or rural residential zones, the occurrence is rare.

To accompany land use permissibility in the Zoning Table, a local planning scheme usually includes provisions that expand on the use and provide a basis for local government decision-making. In such cases, a provision could be inserted in Part 4 of the local planning scheme to indicate that the local government can exercise its discretion to trigger section 120(2) of the Mining Act, and to signify that its discretion is limited to this role rather than a development approval role. A provision that has been used in several local planning schemes is:

> "In considering proposals to commercially extract minerals, Council may exercise its discretion to inform the Minister for Mines and the Minister for Planning in writing that the granting of a mining lease or general purpose lease is contrary to the provisions of the Scheme and the Local Planning Strategy."

The example on page 16 differentiates between those mining operations on Mineral to Owner land in which the local government has a direct approval role and other lands where the Mining Act applies. In the latter case, the 'D' designation can act as a trigger for referrals under section 120 of the Mining Act if the local government choses to do so.

State Agreements are legislative contracts between the Government of Western Australia and proponents of major resource projects which are ratified by an Act of the State Parliament. They specify the rights, obligations, terms and conditions for development of the project and establish a framework for ongoing relations and cooperation between the State and the project proponent.

Development which is subject to a State Agreement is not subject to any provision of the *Planning and Development Act 2005*. However, sometimes proposals may be forwarded to a local or State agency for review and comment.

An example of Mining in a Zoning Table where Mineral to Owner land exists

Use Class/Zone	Residential	Special residential	General industry	Rural residential	Rural	Environmental conservation
Mining operations on Minerals to Owner land*	X*	X*	X*	X*	A*	X*
Mining operations Mining Act	D	D	D	D	D	D

7.2 Basic raw materials

Guidance for the extraction of basic raw materials within the Perth and Peel planning regions is provided in *State Planning Policy 2.4: Basic Raw Materials*. Guidance for basic raw materials outside the Perth and Peel planning regions is provided in SPP 2.5. The extraction of basic raw materials on Crown land (National Parks, State Forests and other Crown reserves) is subject to Section 24 of the *Mining Act 1978*, and require the approval of the relevant Ministers and Government authorities. Extraction in these areas is likely to be subject to assessment under Part 4 of the *Environmental Protection Act 1986*.

Proximity to sensitive land uses such as rural residential estates may limit or sterilise extraction of basic raw materials due to ongoing amenity concerns such as dust and noise. Where basic raw materials are present, consideration should be given to the zoning and land use of the area, and provisions for the protection, access and use of the resources. Schemes may provide for extractive industries in rural zones, although basic raw material extraction areas can also be identified as Special Control Areas which can set out the appropriate land use and development controls, arrangements for the referral of applications where appropriate, and the matters to be considered before determining a development proposal. Special Control Areas are dealt with in Part 5 of local planning schemes and should be identified on scheme maps.

The following should be considered when determining provisions to include in local planning schemes:

- hours of operation;
- vehicle access points available to the site;
- size and frequency of trucks that will be required;
- location of extraction areas relative to sensitive land uses;
- whether a management plan is required and if so, what it should address;
- management of biosecurity to prevent pests, weeds and diseases from being introduced or transported to other locations;
- measures to minimise air, water, noise, vibration and visual pollution;
- size and/or storage of excavations, stock piles and over-burden dumps; and
- appropriate rehabilitation of the land.

For further information, refer to the WAPC fact sheet for basic raw materials. This outlines a range of land use planning considerations relevant to the establishment, expansion or modification of extractive industries in Western Australia. The Department of Agriculture and Food WA also has an extractive industries protocol for weed management.

Planning for tree farms

The desirability of tree farms varies considerably between local government areas. Community views regarding tree farms can be obtained and be incorporated into a strategy to provide future direction for this land use. Where there is community support, strategy considerations could include:

- the areas / districts in which tree farming is most suitable;
- whether tree farms can be used to address environmental management issues or provide screening/ improved landscapes;
- the use of tree farms as supplementary income for broadacre farmers; and
- tree farms as an economic development tool which may be combined with downstream processing.

The Code of Practice for Timber Plantations in Western Australia (2006) sets out standards for plantation establishment and management. It contains information on environmental care, silviculture, harvesting and relevant legislation.

In areas where climate change is making traditional farming operations unviable, tree farms for the purpose of carbon sequestration may provide a viable alternative.

SPP 2.5 supports tree farms in rural areas and promotes local government approval regimes that respond to community views and local circumstances. The approvals regime can be used to encourage or discourage some or all forms of tree farming.

Matters to consider in relation to approval requirements include:

- the type of tree farm – a tree farm that will be regularly harvested will have different impacts to a tree farm established for carbon sequestration;
- whether the land is general agriculture or priority agriculture – tree farms are generally not recommended on priority agricultural land;
- the type of trees being planted – this will affect integration with the local environment or bushfire risk;
- whether there is an adequate transport strategy if the crop is to be harvested; and
- whether there is a maximum size of tree crop allowed prior to development approval being required. As a guide, under the *Code of Practice for Timber Plantations in Western Australia* (2006) published by the Forest Industries Federation WA Inc., a plantation is designated as a stand of trees 10 hectares or larger.

8.1 Fire management

Fire control and bushfire risk is a planning consideration governed by *State Planning Policy 3.7 - Planning in Bushfire Prone Areas* (SPP 3.7). Some densely planted tree farms may have a substantially higher fire risk than broadacre crops, so the implications of locating tree farms close to fire sensitive land uses such as hay plants, State forests and residential development needs to be considered. Applications for a proposed tree farm should identify and address bushfire hazard as if it already existed, in accordance with SPP 3.7.

A Notification on Title to the effect that the land is within a bushfire prone area and may be subject to a Bushfire Management Plan should be a condition of approval. The Bushfire Management Plan should set out the short, medium and long term management strategies for the bushfire hazard and represent an ongoing commitment by the landowner/proponent or responsible authority to undertake bushfire risk management measures for the life of the development.

8.2 Environmental benefit

A benefit from tree farms is their potential to address environmental issues, such as salinity, soil erosion, land degradation, waterlogging and other natural resource management (NRM) matters by replacing the tree cover that was removed through past agricultural practices. Integrated tree farms, as discussed in Part 8.4 in particular, address NRM objectives.

Consultation with the local NRM organisation about identifying areas suitable for rehabilitation is recommended. In many cases these groups have undertaken extensive studies and research into local catchments.

8.3 Visual impact

Some tree farm proposals may improve landscape values by addressing land degradation or screening unsightly facilities such as quarries, abattoirs or strategic industrial areas. Other proposals, which may obscure particular landscape features, may be seen to detract from the natural or rural landscapes. If landscape protection is a matter of importance to the local community, it may be appropriate to consider limits on tree farms or excluding areas of high landscape values.

> *When considering landscape provisions the WAPC's Visual Landscape Planning in Western Australia Manual (2007) is a recommended point of reference. For more information contact the Department of Planning.*

8.4 Integrated tree farming

Since integrated tree farms, as defined in SPP 2.5, are primarily established for NRM purposes and the tree crop is a secondary purpose, the policy position established in SPP 2.5 is that development approval should not be required for this land use. If required, it may be beneficial to establish a local planning policy or scheme amendment to clarify this.

Some of the matters to consider are:

- the species to be planted:
- the proposed width of the tree rows;
- whether the trees cover 10 percent or more of the farm's productive land area;
- whether the trees are on land previously under crop or pasture;
- whether the tree farm proposals are integrated into existing farm management; and
- whether it is intended to harvest the trees.

Managing and improving environmental and landscape attributes

9.1 General environmental matters

Under *State Planning Policy 2: Environment and Natural Resources Policy* (SPP 2) and SPP 2.5 the conservation of environmental assets is seen as enhancing the sustainability of rural areas. Areas of environmental significance including remnant vegetation, riparian vegetation, waterways and wetlands, provide aesthetic and sustainability benefits for communities.

At a strategic level, one of the first steps is to identify the conservation estate, remnant vegetation, waterways and wetlands. There may be other environmental datasets available, and it is recommended that the Department of Planning is consulted to ascertain this information.

A scheme may provide for conservation-themed rural living estates, areas for 'private' conservation, or mechanisms to address environmental matters.

The following matters should be considered where development proposals may impact on environmental values:

- whether clearing is likely to gain approval;
- fencing of remnant vegetation or revegetated areas;
- control of stock access e.g. along waterways;
- requirement for the formal protection of vegetation;
- whether building envelopes, crossovers, firebreaks and access roads can be sited and designed to mitigate environmental impacts;
- whether there is potential for conflicts with adjoining rural activities;
- fire management issues and provisions; and
- zoning of the area - a specific Conservation zone may be considered in some instances.

9.2 Rehabilitation of degraded land

Clause 6.2 of DC 3.4 provides for the subdivision of rural land under exceptional circumstances, including the rehabilitation of degraded land. Rehabilitation of farming land to increase agricultural productivity is part of normal farming practice and not an exceptional circumstance under DC 3.4. However, where a local government, land care or other community group, or similar organisation seeks to rehabilitate land for the community's benefit it may be appropriate for the degraded land to be on an individual title.

In considering the creation of new rural lots, which is generally inconsistent with WAPC policy, the WAPC needs to be satisfied that the site will be rehabilitated and that suitable management conditions are in place.

As a result, the following matters may need to accompany an application for subdivision for the purpose of rehabilitation:

- a restriction on title or long-term lease or management agreement with an incorporated land care body or similar, to ensure that rehabilitation occurs;
- the purpose, intent and management including proposed form, measures and timeframe;
- advice from Department of Parks and Wildlife, Department of Agriculture and Food WA or other relevant bodies, that the proposed rehabilitation methodology is appropriate and can achieve environmental benefit; and
- evidence that demonstrates the land is degraded, not simply unproductive.

Similarly to lots created to conserve biodiversity and natural heritage, only one new lot would be created for rehabilitation purposes. The requirements of *Development Control Policy 1.1: Subdivision of land - general principles* would also apply.

9.3 Landscape

The character of landscape reflects and enhances rural areas and is valued for its intrinsic qualities, for the quality of life and enjoyment of people, and for the economic benefits through tourism, for example. Some landscapes are under pressure where development is proposed in sensitive locations. Local planning strategies should identify regional and local landscapes and the objectives and provisions required for their protection and enhancement.

Some local governments have inserted Special Control Areas into schemes to protect significant

landscapes and apply planning controls to conserve and enhance their character. Other local governments have introduced a Landscape Protection zone to control land use and development which could adversely impact on the landscape, and to ensure that new development complements and enhances the landscape.

When considering landscape requirements, some or all of the following matters may be the subject of local planning scheme and local planning policy provisions:

- setback requirements in rural areas;
- buildings on ridgelines and other prominent locations;
- scenic areas, including bushland, waterways and wetlands; and
- community expectations for rural areas.

The WAPC's *Visual Landscape Planning in Western Australia Manual* (2007) provides guidance on land uses and developments that may give rise to potential impacts on different landscapes, and measures to address those impacts.

9.4 Soil and land conservation covenants

Conservation covenants can be created voluntarily by land owners who wish to permanently protect native vegetation and other environmental values on their land. Three types of covenant agreements are available within Western Australia, which are administered under different legislation. They include:

- The Department of Agriculture and Food provides for two types of covenants through the *Soil and Land Conservation Act 1945*, being conservation and reserve covenants. Both types of covenant can apply for an agreed period or in perpetuity. The land owner manages the vegetation on the land to retain and promote its growth. Proposals to rezone, subdivide or develop land subject to a covenant should be referred to the Department of Agriculture and Food's Office of the Soil and Land Conservation for advice and information.
- The Department of Parks and Wildlife provides covenants in perpetuity that are administered through the *Transfer of Land Act 1893*. These covenants are designed to protect nature conservation values on private land.
- The National Trust of Australia (WA)'s conservation covenant program assists private landowners in protecting natural values on their properties. The National Trust is a community based organisation which provides assistance, management and funding opportunities to landowners through the *National Trust of Australia (WA) Act 1964*.

The primary aim in protecting native vegetation under the *Soil and Land Conservation Act 1945* is to conserve soil and land resources and to mitigate the effects of erosion, salinity and flooding. For this reason, the biodiversity values of the vegetation are secondary to the inherent value of retaining the vegetation in the landscape, and there is no provision for ongoing stewardship that occurs with other covenanting programs. For these reasons, these types of conservation covenants are not provided for under Section 6.5 of DC 3.4 as they do not meet the policy objectives of protecting and improving environmental assets within a conservation lot.

Covenants do not usually contain management prescriptions beyond limiting the clearing and grazing of native vegetation and may allow uses such as removal of selected timber and seed collection. Fencing may be required to ensure livestock do not enter into the covenanted area.

For more information please refer to *Your land its future: choices for conservation covenanting in Western Australia* online at www.dpaw.wa.gov.au/images/documents/conservation-management/off-road-conservation/covenant/your_land_future_sept2005.pdf

9.5 Stocking rates and the keeping of animals

Each rural living estate will have variations in lot sizes, soil condition, rainfall, climate and vegetation. As a result, the keeping of stock or animals may be restricted, or not permitted, in rural living estates. It is quite common for these restrictions to be identified in a schedule to the scheme or even as a provision of a structure plan. These restrictions may also be included on the certification of title through a notification under s70A of the *Transfer of Land Act 1893*.

Some local governments have local planning policies for keeping livestock on rural lifestyle properties and many require a development application including a livestock or equine management plan to be submitted to the local government.

'Stocking rates', in the context of rural living estates is identified as the number of grazing animals (e.g. sheep, cattle, horses or goats) that can be kept in good condition on areas of pastures all year around without providing them with extra feed and without causing harm to the environment. Usually stocking rates are calculated for non-irrigated (dry) pasture where annual rainfall exceeds 650mm per year but, in some places where irrigation is available, higher stocking rates may be appropriate.

In areas where annual rainfall is less than 650mm, such as the Wheatbelt, grazing animals in rural living estates will always require seasonal supplementary feeding to maintain

their health and to prevent environmental degradation, and therefore calculations of stocking rates do not apply.

There are broadly three types of land that need to be considered when assessing stocking rates and compatible management systems:

- All year access areas - gentle to moderate slopes and winter dry sandy loam soils. They provide ongoing access for grazing animals except when surface vegetative cover becomes too sparse.
- Restricted access areas - include areas which become waterlogged in winter, steep slopes, highly erodible sandy, shallow or poorly structured soils.
- Prohibited access areas - extreme slopes, areas affected by gullying or salinity, creek lines, or areas of native vegetation.

More information on the stocking rates for different soil and landforms is included in the Department of Agriculture and Food's *Stocking rate guidelines for rural small holdings - Swan Coastal Plain and Darling Scarp, Western Australia*.

When discussing stocking rates the term dry sheep equivalents (DSE) is generally used. This is a standard unit representing the number of adult sheep that can be maintained on each hectare of land all year round, without soil degradation, weight loss and with only minimum hand feeding. The DSE unit is frequently used to compare the feed requirements of different classes of livestock or to assess the carrying capacity and potential productivity of a given farm or area of grazing land. This can assist landholders in determining the total number of stock which can be carried on a particular property.

The following dry sheep equivalents are included in the Department of Agriculture and Food's 's published guideline:

1 light horse = 10 DSE

1 pony = 6 dry DSE

1 draught horse = 20 DSE

1 dry cow, yearling steer or heifer = 8 DSE

1 milking goat = 2 DSE

Example of a calculation of stocking rate for rural lifestyle property (< 650mm annual rainfall):

To calculate how many horses can be kept on an eight hectare property with its soil and land rated at eight DSE/ha the following must considered:

- the area of the property = 8 ha
- subtract the area occupied by vegetation, buildings and infrastructure = 2 ha
- the remaining area that is available for pasture = 6 ha
- the area with restricted access for six months = 2 ha (4 DSE/ha)
- the area with all year access = 4 ha (rated at 8 DSE/ha)

With the above figures the stocking rate can be calculated as:

Total DSE = (2ha x 4DSE) + (4ha x 8DSE) = 40 DSE

Therefore, the area is sufficient for four light horses or two draught horses (based on the Department of Agriculture and Food's DSE ratios listed above). The figures are only a general guide and ongoing observation is required to ensure land is not degraded over time.

For more information about stocking rates refer to the Department of Agriculture and Food's *Stocking rate guidelines for rural small holdings Swan Coastal Plain and Darling Scarp, Western Australia* or seek advice from the Office of the Soil and Land Conservation Commissioner, Department of Agriculture and Food WA.

Preventing and managing impacts in land use planning

10.1 Land use conflict and amenity

Proposals to rezone, subdivide or develop land within rural areas may have both onsite and offsite impacts. These impacts should be addressed at the earliest opportunity as the retrofitting of measures once issues become apparent is often not possible, or is difficult and costly.

The following should be considered in order to mitigate negative impacts:

- Does the development contain environmental risks, including clearing of remnant vegetation, waterways and associated vegetation and wetlands?
- Is there the potential for normal farming operations to impact on proposed sensitive land uses, such as spray drift over rural residential areas?
- Are farming operations potentially incompatible, such as spray drift from broadacre farming operations negatively impacting on intensive agriculture or vice-versa?
- Is there potential for negative impacts from rural industry, such as pollution (air, water or soil) and amenity impacts?

Amenity impacts generally relate to matters such as noise, visual impact, odour and dust. In rural areas accidental spray drift, insects and normal farming activity may also impact on the amenity of an area.

If there is potential for a development to have a negative impact on the amenity of surrounding areas, some mitigation methods that could be employed are to:

- avoid the conflict in the first instance by applying separation distances;
- use existing or planted vegetation to screen less visually appealing development;
- include Scheme provisions relating to landscape and rural character, to address visual amenity;
- consider grouping additional dwellings and/or services required for farm operations, to minimise impacts on surrounding land uses; and
- minimise amenity impacts by careful siting of development and being mindful of setbacks, building envelopes and exclusion areas.

Appendix 2 outlines various separation distances that should be employed when planning for rural uses near sensitive land uses.

10.2 Consultation

Minimum consultation requirements are outlined the *Planning and Development Act 2005* and the *Planning and Development (Local Planning Schemes) Regulations 2015*. In addition, when preparing local planning schemes, strategies and scheme amendments, local governments are encouraged to consult as widely as possible.

Additional consultation methods include:

- local government websites: a website is often the primary point of information dissemination in a local government area;
- local newspapers: articles or advertisements may bring proposed schemes and strategies to the notice of the community;
- pamphlets and information sheets: placed in strategic locations, such as administration centres, libraries and community resource centres, pamphlets and information sheets can be useful in informing the community of development proposals and may also be included in website advertising;
- mail: direct mail will ensure landowners have the opportunity to be informed;
- displays: posters or maps in administration centres, shopping centres and community facilities may be an inexpensive means of bringing proposed strategies and schemes to the attention of the community;
- public meetings: public meetings provide direct interaction with the community and allow for question and answer sessions, which may aid in avoiding misunderstandings; and
- providing a point of contact: a point of contact will allow members of the community to have questions answered directly and to obtain accurate information tailored to their particular interest.

Appendix 1 - Guidance for rainwater catchment calculations

Where reticulated water is unavailable, alternative water supply options may be available. The most common alternative water source proposed is the harvesting of rainwater from roof catchments. Local governments may stipulate a minimum tank size to service residential water requirements. Depending on local circumstances, tank sizes generally range from 90,000 litres (L) to 120,000L.

Rainfall as a fit-for-purpose water supply

As a source of potable water, rainwater harvesting may be impacted by a number of variables including:

- the total average rainfall;
- the size of the collection area;
- water lost through absorption and/or evaporation;
- the frequency of rainfall events;
- rainfall reliability; and
- potential reduction in rainfall due to climate change.

Any or all of the above factors may negatively impact on the ability to sustainably harvest, store and supply a sufficient quantity of rainwater, and should be considered when proposing rainfall as an alternative water supply.

Household water use (Volume of water required)

The Water Corporation's *Perth Residential Water Use Study* 2008/09 determined that the average urban resident uses a total of 106 kilolitres (kl) (106,000L) per year. This amount of water is made up of the following:

Water Use	kl (1,000 litres)
Indoor Use	56
Outdoor Use	46
Private Plumbing Leaks	4
Total	**106**

Based on annual reports published by the Water Corporation, metropolitan Perth and Peel households are the lowest users of water in the State, with consumption figures far higher in rural areas. However, metropolitan usage will be assumed for country areas, as this is the most reliable, demonstrated indication of average household use.

The *State Water Plan 2007* has an aspirational target for the average per person consumption of 100 kilolitres per year. If the proposed development can demonstrate water efficiency through design or otherwise, then this amount may be used to calculate water requirements.

The average Western Australian household is 2.6 persons (Census 2011). Therefore, for the purpose of calculating water supply requirements for rural living proposals, the average amount of water consumed per dwelling per year, based on Water Corporation figures, is either 275.6kl (275,600L) (106kl x 2.6 persons per household) or 260kl (260,000L) (100kl x 2.6 persons per household), which is the lower aspirational water usage target expressed in the Water Corporation's *Water Forever* (2009) document.

Fire fighting

Water for fire fighting purposes should also be considered. Rural living often occurs in areas of moderate or higher bushfire risk, with many bushfire management plans requiring an independent water source. In addition, local governments may require an additional amount of water to be held in reserve for use in the event of a bushfire. Approximately 10,000L is generally required to address fire management concerns, although this amount may be varied due to site specific assessment or statutory requirements.

Calculating required collection (roof) area

The method for calculating the minimum collection area required to service a rainwater tank is based on a calculation sourced from the Department of Water's *Stormwater Management Manual for Western Australia* (2004) as follows:

Collection area (m^2) = Average Household Water Consumption (L) divided by (0.85 x (local rainfall – 24mm))

> *0.85 is the efficiency of the collection meaning a minimum of 85% of the water will be collected (A greater efficiency rate may be accepted if it can be demonstrated through design). 24mm is the anticipated loss through absorption and wetting of materials based on 2mm per month.*

Example: in a location where the average rainfall is 600mm per year:

Average Household Water Consumption (L):275,600L

(local rainfall - 24mm):
600mm - 24mm = 576mm

(0.85 x (local rainfall - 24mm)):
0.85 x 576mm = 489.6

Average Household Water Consumption (L) divided by (0.85 x (local rainfall – 24mm)):

275,600L divided by 489.6 = 563

Collection area = 563m^2

In this example, in a location where the average annual rainfall is 600mm, the minimum collection area required to collect sufficient rainfall for an average household is 563m^2.

Calculating tank size

Where no tank size is specified under the local planning scheme or a structure plan, or a new scheme or relevant scheme amendment is being considered, an appropriate tank size needs to be calculated. The size of the tank must be sufficient to allow a buffer for months with little or no rainfall. To provide an initial water supply it is assumed water will be sourced off site (water carting). An appropriate water source should be identified by a licensed water supply agency, such as Water Corporation, prior to commencing the calculation. Lack of an off site water source may impact on the viability of the proposal.

The method of calculating the size of a rainwater tank is based on a per month calculation over an average year and is sourced from the Department of Water's *Stormwater Management Manual for Western Australia* (2004) as follows:

Vt = Vt-1 + (Water collected - Demand)

Vt = volume of water remaining in the tank at the end of the month

Vt-1 = volume of water left in the tank from the previous month

Starting with a full tank, this calculation should be used for each month of the year, for a minimum of three years. An acceptable off site water source will need to be identified to allow initial filling of the tank(s).

If in any month 'Vt' is a negative figure then demand exceeds supply and a bigger tank should be considered. Provided the collection area supplies sufficient water to meet the average household water consumption Vt, will only be negative if overflows reduce the amount of water collected.

Example: using a month with an average of 100mm of rainfall, a collection area of 300m^2, average water consumption (average annual water consumption divided by 12 = 22,967L) and 5,000L remaining from the previous month:

Vt-1 = 5,000 (Water remaining in tank at start of month)

Water collected = ((0.85 x (monthly rainfall - 2)) x collection area)

= ((0.85 x (98)) x 300)

= 24,990L

Demand = 22,967L

Therefore:

Vt = Vt-1 + (Water collected - Demand)

Vt = 5000 + (24990 - 22967)

Vt = 7023L

Note: Vt cannot exceed the volume of the tank

The calculation is repeated for each month for a period of three years to ensure a continuation of supply. If the Vt equals a negative amount in any month, then the tank size should be increased or the size of the collection area should be reviewed. The Department of Planning has developed an Excel spread sheet that calculates these figures automatically. This can be downloaded at www.planning.wa.gov.au/ruralpolicies

Calculation variables

When considering rainfall as an alternative, two variables for residential water supply must be considered. The first variable is the collection (roof) area (m²) required to collect sufficient water, and the second is security of supply which is determined by tank size.

Collection area

To service a rainwater tank, a sufficiently sized collection area is required, to ensure that enough rainwater can be collected to service the household water requirements. The collection area will normally comprise the roof area of structures on the lot and may include the dwelling, outbuildings and any other structure capable of collecting and directing water into the tank/s.

To obtain the necessary amount of rainwater, roof catchments substantially greater than the average roof area for a single dwelling may be required. Dwellings associated with farming activities will generally have access to large roof areas associated with outbuildings. However, the amount of roof area required for an alternative water supply may be inappropriate for rural living development. Sheds will provide additional catchment area but for rural residential/lifestyle purposes, sheds of the number and size required may be inappropriate, unnecessary and uneconomic.

In demonstrating the suitability of rainwater as an alternative water supply, proponents should provide evidence that the required catchment area can reasonably be provided by the future landowner. Catchments greater than 300m² may result in unintended costs to the purchaser of the lots, and create amenity issues in the locality.

Notifications on title and provisions within local planning schemes could be used to advise future purchasers of the minimum catchment area necessary to provide a sustainable water supply; these costs can be factored into their decision-making.

Security of supply (tank size)

Once the quantity of water required to be supplied from a rainwater tank has been determined, tank size should be calculated, based on the tank being large enough to store the volume of water needed to meet demand throughout the year. This in turn depends on the locality's annual rainfall, including its frequency and reliability.

Some local planning schemes specify a minimum tank capacity of 90,000 litres to 92,000 litres in higher rainfall areas (Denmark, Harvey), and 120,000 litres in lower rainfall areas (Chittering, Victoria Plains). These tanks have a smaller capacity than the total amount required per year, as it is assumed the rainfall will be reliable enough to replenish the tank as it is consumed for at least part of the year. In lower rainfall areas a larger tank size is required, to capture rain that tends to fall in single, large events.

Appendix 2 - Comparison of separation distances between rural land uses and sensitive land uses

	Department of Agriculture and Food (DAFWA)	Department of Environmental Regulation (DER)	Environmental Protection Authority (EPA)		Department of Health (DoH)	National Industry Standard	State Industry Standard	Consistency and explanation for variation
			Current	Draft Revision				
Abattoirs		500 - 1,000m	500 - 1,000m	500 - 1,000m				**Consistent**
Basic Raw Materials (BRM)		2,000m	Case by Case / 300 - 1,000m	300 - 1,500m				**Low Variation** DER does not specifically outline separation distances for Basic Raw Materials, whereas the EPA recommends separation distances based on the type of BRM and its method of extraction.
Market Gardens	Website: Refers to EPA Guidelines		300 - 500m	300 - 500m	Refers to EPA Guidelines 300-500m			**Consistent**
Turf Farms	Website: Refers to EPA Guidelines		500m	500m	Refers to EPA Guidelines 500m			**Consistent**
Piggeries	300m - 5km	1,000m	500m - 5km	1,000m		Case by case		**Low Variation** A variation exists between EPA's current Guidelines and the draft revision, which is pending adoption.. Once adopted, the variation will be resolved. As DAFWA is not the determining authority and the information provided is dated, their document can be disregarded.
Poultry Farms*			300 - 1,000m	300 - 1,000m		250 - 500m	300 - 500m	**Low Variation** The National and State Industry Standards recommend a smaller buffer to sensitive land uses than the EPA. Meeting the recommendations of the EPA will result in satisfying the industry standard.
Feedlots	1,000m - 5km	1,000m	1,000 - 2,000m	1,000m 5km from towns		Case by case		**Low Variation** A variation exists between EPA's current Guidelines and the draft revision, which is pending adoption. Once adopted, the variation will be resolved as both DAFWA and the EPA recommend a 1,000m buffer and a 5km buffer from towns. National Industry Standards calculate the appropriate distance based onsite design and scale.
Livestock and Stockyards		1,000m	1,000m	1,000m				**Consistent**
Source document name and link	*Environmental Guidelines for New and Existing Piggeries* *Environmental Management of Beef Cattle Feedlots in WA*	*Guidance Statement: Separation Distances* *Division 3, Part V, Environmental Protection Act 1986*	*Guidance for the Assessment of Environmental Factors: Separation Distances between Industrial and Sensitive Land Uses (2005)*	*DRAFT Environmental Assessment Guideline for Separation Distances between Industrial and Sensitive Land Uses (2015)*	*Guidelines for Separation of Agricultural and Residential Land Uses - Establishment of Buffer Areas*	*Australian Pork Ltd* *Australian Egg Corporation Limited* *Meat and Livestock Aus / Australian Lot Feeders' Association*	*Turf Growers Association WA* *WA Broiler Growers Association /Poultry Farmers Association of WA*	This table has been produced to assist the implementation of clause 5.12 of *State Planning Policy 2.5 Rural Planning* by identifying the separation distances to sensitive land uses recommended by State government agencies and industry bodies. All distances contained in this table are recommendations only. * A 5km buffer may be recommended or required between poultry farms for biosecurity purposes.