GOVERNMENT OF WESTERN AUSTRALIA

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Government Sewerage Policy

September 2019

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State Government of Western Australia – September 2019

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1 Policy intent

This policy establishes the Western Australian Government's position on the provision of sewerage services in the State through the planning and development of land. It requires reticulated sewerage to be provided during the subdivision and development of land. In instances where reticulated sewerage cannot be provided, it adopts a best practice approach to the provision of on-site sewage treatment and disposal, in accordance with *Australian/New Zealand Standard 1547 On-site domestic wastewater management*.

2 Introduction

The requirement to connect to reticulated sewer was broadly established in 1981 and has been consistently supported by successive Governments since.

The widespread historical use of on-site sewage systems in Western Australia has resulted in health, environment and amenity issues. These are still being addressed through the Infill Sewerage Program at significant cost to the State. The revised policy aims to ensure that future generations of Western Australians do not bear the cost of another infill program as a result of planning decisions made today.

It is acknowledged that on-site sewage disposal technologies have advanced considerably in recent decades, however there are still significant risks associated with their use. The installation, operation and on-going maintenance requirements for advanced on-site systems are more involved than for conventional septic systems. For example, health regulations require secondary treatment systems to be serviced regularly by licensed personnel to achieve an acceptable level of treatment. As effluent from secondary treatment systems is disposed of at or near the surface of the ground, public health, amenity and environmental impacts are likely to be greater when sewage is not treated sufficiently. On-site sewage systems servicing individual lots are therefore not considered an appropriate alternative to reticulated sewerage for most subdivision and development. In some instances however, they are an acceptable method of servicing, particularly for low density urban and industrial development outside public drinking water source areas and sewage sensitive areas, where reticulated sewerage is not feasible.

Reticulated sewerage provides the lowest health, environmental, social and economic risk to the community for the disposal of sewage. It also supports the widest variety and changes of land use. Sewage discharge may contain nutrients, metals, salts, endocrine (or hormone) disrupting chemicals, bacteria, viruses and other pathogens. If not adequately treated through appropriately operated and maintained reticulated or on-site sewage systems, these affect water quality and can result in water contamination, adverse impacts to public health and to wildlife which rely upon the water for drinking or to support habitat. Discharges from sewage treatment plants are regulated to ensure that the quality of treated sewage is satisfactory for release into the environment or for its beneficial re-use, without an unacceptable impact on the environment and with the greatest regard for public health. Sewage re-use, where approved, can reduce potable water use. It is acknowledged that conventional reticulated sewerage servicing arrangements may not be relevant in strategic industrial zones of Strategic Industrial Areas.

Under the *Water Services Act in 2012*, private service providers are able to provide reticulated sewerage services. This presents an opportunity for innovation in the provision of reticulated sewerage for planning proposals in areas of the State where connection to an existing reticulated sewerage network is not feasible or preferred.

3 Policy objectives

This policy promotes the sustainable use and development of land in the State through the following objectives:

1. to generally require connection of new subdivision and development to reticulated sewerage;
2. to protect public health and amenity;
3. to protect the environment and the State's water and land resources;
4. to promote the efficient use of infrastructure and land;
5. to minimise costs to the broader community including by ensuring an appropriate level and form of sewage servicing is provided; and
6. to adopt the precautionary principle to on-site sewage disposal.

4 Policy application

This policy applies to the following planning proposals throughout the State of Western Australia:

1. strategic plans including regional planning frameworks, sub-regional plans, and local planning strategies;
2. region and local planning schemes, and scheme amendments except for the purpose of rural land use;
3. structure plans;
4. subdivision applications, regardless of tenure proposed, for the creation of lots less than four hectares; and
5. development applications, regardless of tenure, other than for a rural use or development of a single house on a single lot.

The application of this policy within the strategic industrial zone of Strategic Industrial Areas will be considered on a case-by-case basis to avoid duplication with *Environmental Protection Act 1986* and other statutory approvals processes.

Schedule 1 sets out the supporting information that the applicant should provide at different stages of the planning process.

Schedule 2 sets out the technical components for the provision of on-site sewage disposal.

This policy supersedes *Government Sewerage Policy – Perth Metropolitan Region* (released 1996) and the draft *Country Sewerage Policy* (released in 2002 and amended 2003).

The policy is to be read in conjunction with the supporting Explanatory Notes which provide detailed explanation on policy implementation.

5 Policy measures

5.1 Reticulated sewerage

5.1.1 Requirement to connect to reticulated sewerage

Planning proposals are required to connect to or provide for reticulated sewerage:

1. where the provision of reticulated sewerage is required by a local planning scheme or a policy, strategy or plan endorsed by the Western Australian Planning Commission;
2. when any stage or part of any future or proposed subdivision or development is already connected to reticulated sewerage;
3. where the responsible authority determines any future or proposed subdivision or development can be reasonably connected to reticulated sewerage;
4. where the responsible authority determines that the absence of reticulated sewerage will jeopardise future land uses provided for in:
    a. a proposed or approved local planning scheme or scheme amendment; or
    b. in a proposed or endorsed Western Australian Planning Commission policy, strategy or plan;
5. where the responsible authority determines that the absence of reticulated sewerage will prejudice, physically or financially, the ability to provide sewerage to the local area; or
6. where the responsible authority determines that the absence of reticulated sewerage will pose an unacceptable risk to public health, the environment or water resources. This includes instances where:
    a. the minimum site requirements for on-site sewage systems (as defined in section 5.2) cannot be reasonably met;
    b. the impact of on-site sewage disposal is deemed likely to have a detrimental impact on the water quality of a public drinking water source area, sewage sensitive area or other waterway or wetland. Where approval of any future or proposed application without connection to reticulated sewerage is likely to set a precedent for similar proposals in the local water catchment, the cumulative impact will be considered; and
    c. urban, industrial or commercial subdivision is proposed in Priority 3 public drinking water source areas; or
7. where land is being rezoned for the creation of lots less than one hectare and the highest groundwater level is less than 0.5m below the natural ground level.

5.1.2 Licensing requirements

Reticulated sewerage must be provided in accordance with the terms of a license issued by the Economic Regulation Authority, unless the sewerage service provider has an exemption for the reticulated sewerage service which is granted by the Minister for Water under Section 7 of the *Water Services Act 2012*.

5.1.3 Survey strata

Where a survey-strata scheme is to be connected to reticulated sewerage, arrangements are to be made at the time of subdivision to ensure that a separate sewer connection will be available to each lot within the scheme that is intended for separate use or occupation.

5.2 On-site sewage disposal

Where the provisions of 5.1.1 do not apply, on-site sewage disposal may be considered where the responsible authority is satisfied that:

- each lot is capable of accommodating on-site sewage disposal without endangering public health or the environment; and
- the minimum site requirements for on-site sewage disposal outlined in this section and Schedule 2 can be met.

5.2.1 Lot sizes

Location/Land use	Minimum lot size	Notes
Public drinking water source areas in rural, rural residential/rural living zones	One to four hectare	Minimum lot size dependent upon priority area (P1, P2 and P3) and zone. Refer to *Water quality Protection Note 25: Land use Compatibility Tables for Public Drinking Water Source Areas* for further guidance
Sewage sensitive areas	One hectare	Land in a sewage sensitive area that is already zoned for urban use with a residential density coding of R 2 to R10 under a local planning scheme or structure plan endorsed by the Western Australian Planning Commission, may be subdivided in accordance with the existing density coding. Where R10 subdivision is proposed, it should be demonstrated that the density coding was assigned with the understanding that reticulated sewerage would not be provided. Smaller lots in sewage sensitive areas may be considered for non-residential, commercial and industrial subdivision on a case-by-case basis where it can be demonstrated that the proposal meet the minimum site requirements and the responsible authority, in consultation with relevant agencies is satisfied that the proposal is consistent with the objectives of this policy.
Urban/Industrial subdivision outside public drinking water source areas and sewage sensitive areas	2,000m^2	For heavy soils, secondary treatment systems will be required to achieve this lot size (refer to Table 1 in Schedule 2).
Outside public drinking water source areas and sewage sensitive areas and: • Infill residential or commercial subdivision in existing urban areas; or • Residential and commercial subdivision in towns outside the Metropolitan and Peel Region Scheme areas without an established reticulated sewerage scheme; or • Residential and commercial subdivision in towns outside the Metropolitan and Peel Region Scheme areas with existing sewerage schemes (as listed in Schedule 3) where unsewered subdivision at the density proposed is specifically provided for through the provisions of the local planning scheme or a local structure plan endorsed by the Western Australian Planning Commission	1,000m^2	The average lot size is not to be less than 1,000m^2, with a minimum individual lot size of 950m^2. Does not apply for soil category 6 (medium to heavy clay), where larger lot sizes are required. For soil categories 4 (clay loams) and 5 (light clays), secondary treatment systems will be required (refer to Table 1 in Schedule 2).
Survey strata lot or strata lot for an approved grouped dwelling, commercial or industrial development (outside public drinking water source areas)	Case-by-case assessment	The on-site system for strata schemes must service each lot and should be owned and operated by a single person or entity contracted to provide the service or the strata company for the strata scheme. An acceptable maintenance program should be in place for the system and disposal area. Due regard to be given to impacts within sewage sensitive areas

5.2.2 Separation from water resources

An on-site sewage system is not to be located within:

- a wellhead protection zone or on Crown land within a reservoir protection zone;
- 100 metres of the high water mark of a reservoir or 100 metres of any bore used for public drinking water supply where:
  - a wellhead protection zone or reservoir protection zone has not been assigned; or
  - where existing lots would be rendered undevelopable by the wellhead protection zone;
- 30 metres of a private bore used for household/ drinking water purposes;
- 100 metres of a waterway or significant wetland and not within a waterway foreshore area or wetland buffer. The separation distance should be measured outwards from the outer edge of riparian or wetland vegetation;
- 100 metres of a drainage system that discharges directly into a waterway or significant wetland without treatment; or
- any area subject to inundation and/or flooding in a 10 per cent Annual Exceedance Probability (AEP) rainfall event.

Smaller setbacks may be considered where a proponent demonstrates, to the satisfaction of the responsible authority in consultation with the relevant advisory agencies (Department of Water and Environmental Regulation and/or Department of Biodiversity, Conservation and Attractions, Department of Health and/or Local Government) that the reduced setbacks will not have a significant impact on the environment or public health. In seeking a reduced setback, it is likely that secondary treatment systems with nutrient removal will be required. Smaller setbacks from reservoirs or bores used for public drinking water will not be supported.

5.2.3 Separation from groundwater

The discharge point of the on-site sewage system should be at least the following distances above the highest groundwater level, taking into account the range of seasonal groundwater conditions in the context of long term variability and possible groundwater rise following development:

- two metres in public drinking water source areas;
- 1.5 metres in sewage sensitive areas; and
- 0.6 to 1.5 metres in all other areas, depending on soil type and the type of treatment system used (refer to schedule 2).

Where the use of fill is proposed to achieve separation distances, proponents may be required to provide additional information to demonstrate that solutions are effective, do not impact on other lots through water diversion, are not cost prohibitive and will not compromise amenity or landscape values.

The use of drains to achieve separation distances will only be considered for land that is already zoned for urban development and where a drainage management plan is provided to the satisfaction of the responsible authority in consideration of advice from referral agencies to demonstrate:

- how separation from groundwater will be achieved;
- adequate separation between sewage disposal areas and drains in accordance with 5.2.2; and
- that re-directed water will not impact upon surrounding properties or receiving water bodies.

5.2.4 Land application area

Each lot should be of sufficient size to accommodate development and an unencumbered land application area for the disposal of sewage in accordance with Schedule 2 of this policy.

5.2.5 Type of on-site treatment system required

Secondary treatment systems with nutrient removal will generally be required in public drinking water source areas and sewage sensitive areas.

In all other instances, secondary treatment systems should only be required to address site-specific physical or environmental constraints (refer to Schedule 2).

In rural and remote areas, determination of the type of treatment system required should consider the availability of maintenance personnel required to service secondary treatment systems in accordance with Department of Health requirements.

5.3 Information to support planning proposals

The method of sewage disposal should be determined at the earliest opportunity in the planning process.

Information outlined in Schedule 1 should be provided in support of a planning proposal to demonstrate that the long term sustainable sewerage servicing needs of the area and possible future intensification of development have been taken into consideration. The information required is to be commensurate to the scale and nature of the proposal.

5.3.1 Site and soil evaluations

Where required, site and soil evaluations should be provided in accordance with *AS/NZS 1547 On-site domestic wastewater management*. The requirements of the site and soil evaluation may be varied, based on existing site information or where health or environmental impacts are considered minimal.

Where there are concerns regarding the seasonal water table or drainage, a hydrogeological assessment of the site under the wettest time of the year conditions may be required to address local government and Department of Health concerns.

The site and soil evaluation should only be conducted or overseen and signed off by qualified and experienced soil scientists, in accordance with *AS/NZS 1547 On-site domestic wastewater management*, to the satisfaction of local government/ Department of Health.

5.4 Trade waste management

Most reticulated sewerage schemes are not designed to accept trade waste, which could pose threats to public health and safety, and the environment. Discharge of trade waste to a reticulated sewerage scheme will be subject to strict acceptance criteria as defined in the *Water Services Act 2012*. The sewerage service provider may require proponents to:

- comply with an appropriate permitting scheme;
- provide a level of on-site treatment of trade waste prior to discharge to the reticulated sewerage scheme; and
- comply with other alternative arrangements as reasonably required by the sewerage provider.

If trade waste cannot be accepted by the sewerage service provider, alternative arrangements will need to be made.

On-site sewage systems dealing with trade waste must be designed to ensure that environmentally hazardous material is not disposed of on-site.

6 Implementation

Compliance with the requirements of this policy does not exempt the applicant from meeting the requirements of other relevant policy, local planning scheme, legislation and/or regulation, nor guarantee approval/endorsement of the planning proposal by the Western Australian Planning Commission and/or local government.

Planning proposals that have received formal planning approval prior to publication of this policy may proceed subject to the conditions applicable at the time of the approval, for as long as that approval remains in effect.

6.1 Agency roles

To ensure uniform application of this policy, statutory and referral agencies should utilise the policy as follows:

a) local government in the determination of development applications and in the provision of advice to the Western Australian Planning Commission on other planning proposals concerning the capability of land to accommodate on-site sewage disposal;

b) Department of Health in the provision of advice on health and hydraulic loading matters, including where required, the adequacy of soil and site evaluations;

c) Department of Water and Environmental Regulation, in the provision of advice on water resources, including sewage sensitive areas,

public drinking water source areas and waterways, and also advice related to industry licensing, trade waste and the disposal of treated sewage from sewage treatment plants;

d) Department of Biodiversity, Conservation and Attractions in the provision of advice on environmental values, including parks and reserves, specially protected wildlife, ecological communities and significant wetlands and in performing its statutory planning functions for the Swan Canning river system;

e) Western Australian Planning Commission in the determination of planning proposals and the provision of advice to the Minister for Planning; and

f) sewerage service providers in the provision of advice related to connection to their reticulated sewerage infrastructure and acceptance of sewage (which may include trade waste) in accordance with the *Water Services Act 2012*.

The responsible authority will refer proposals to relevant State environmental, health and planning agencies and/or local government, and sewerage service providers for comment and/or assessment.

6.2 Secondary treatment systems – maintenance requirements

The Health Act (Miscellaneous Provisions)1911, the Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974 and the associated Department of Health *Code of Practice for the Design, Manufacture, Installation and Operation of Aerobic Treatment Units* provide for the regular inspection and maintenance of secondary sewage treatment and disposal systems. In particular,

- land owners and secondary treatment system providers are required to ensure that maintenance of their systems is undertaken in accordance with the *Code of Practice for the Design, Manufacture, Installation and Operation of Aerobic Treatment Units*, which includes:
  - servicing at regular intervals as specified by Department of Health;
  - submission of maintenance reports to the local government and Department of Health (where relevant); and
- local government is to ensure that systems are serviced and maintained so as to not cause a public health risk.

Where secondary treatment systems are proposed, local government should consider its capacity to audit, inspect and enforce compliance with the Department of Health endorsed maintenance schedules and operating standards. As part of the consideration, local governments:

- may charge a fee for the inspection and auditing of a secondary treatment system using Section 6.16 of the *Local Government Act 1995*; and
- may include the fee in the property rates via general, special area or differential rating methods.

As maintenance and auditing requirements are ongoing, local governments should consider whether a system that enables electronic submission of maintenance and auditing reports is required, consistent with *AS/NZS 1547 On-site domestic wastewater management*.

7 Definitions

Annual Exceedance Probability (AEP)

The probability that a given rainfall total accumulated over a given duration will be exceeded in any one year.

Aerobic treatment unit

Refer to secondary treatment system.

Best practicable servicing option

The option for sewage servicing that best meets public health, environmental, economic and land use planning objectives.

Development

Development as defined under the *Planning and Development Act 2005*, as amended, which may result in the production of sewage.

Embayment

A recess in a coastline forming a bay.

Environmentally hazardous material

Substances or pollutants that have the potential to cause harm to the environment or water resources.

Groundwater

The area of an aquifer in which all pores and fractures are saturated with water. Also known as water in the phreatic zone.

Heavy soils

Clay loams, light clays and medium to heavy clays as per *AS/NZS 1547 On-site domestic wastewater management*.

Highest groundwater level

The highest level of the saturated zone in the soil. Where measurement is required, this is represented by the shallowest depth to free water that stands in an unlined borehole or where the soil moisture tension is zero (Watts and Hurt, 1991).

Industrial

Land zoned 'industrial' or 'industrial deferred' in a region scheme and/or land that can be subdivided under a local planning scheme to create lots for industrial uses.

Infill

For the purposes of the application of this policy, refers to intensification of new residential dwellings within already established urbanised areas.

Land application area

The unencumbered plan area to which treated sewage from an on-site sewage system is distributed for further in-soil treatment and absorption or evaporation. This area is restricted to the distribution of treated sewage.

Lot

Includes freehold, survey-strata and strata lots.

Marine Reserve

A marine nature reserve, a marine park or a marine management area as defined under section 6(6) of the *Conservation and Land Management, 1984*.

On-site sewage disposal

Disposal of sewage on a land application area within the boundaries of the freehold lot or survey strata within which the sewage was generated.

On-site sewage system

A sewage treatment and disposal system that receives treats and applies sewage to a land application area located within the boundaries of the freehold lot or survey strata within which sewage was generated.

Primary treatment

The separation of suspended material from sewage in septic tanks, primary settling chambers, or other structures (including those which may be used to treat trade waste), before discharge to either a land application area or secondary treatment process. (For example, septic tanks with leach drains).

Priority areas

Priority 1 (P1) Priority 2 (P2) and Priority 3 (P3) areas that are assigned to land within public drinking water source areas under the Metropolitan Water Supply, Sewerage, and Drainage By-laws 1981 in the metropolitan area and the Department of Water and Environmental Regulation's policy and drinking water source protection reports throughout the rest of the State.

Priority Ecological Community

Possible threatened ecological communities that do not meet survey criteria and that are listed in the Department of Biodiversity, Conservation and Attraction's Priority Ecological Community Lists.

Public drinking water source area

The area from which water is captured to supply drinking water. It includes all underground water pollution control areas, catchment areas and water reserves constituted under the *Metropolitan Water Supply, Sewerage, and Drainage Act 1909* or the *Country Areas Water Supply Act 1947*.

Reservoir protection zone

The area measured two kilometres from the high water mark of a drinking water reservoir, and inclusive of the reservoir. This is referred to as a prohibited zone under the Metropolitan Water Supply, Sewerage, and Drainage Act By-laws 1981 in the metropolitan area and the Department of Water and Environmental Regulation's policy and drinking water source protection reports throughout the rest of the state. The zones do not extend beyond the boundary of the public drinking water source area.

Residential

For the purposes of this policy, refers primarily to areas that accommodate dwellings for human habitation and areas where housing predominates.

Residential subdivision

The subdivision of land for the creation of lots less than four hectares where residential land uses are proposed. Includes, though is not restricted to, land that is zoned residential, rural residential, rural living or special rural.

Responsible authority

The person or body responsible for the determination of a planning application under the *Planning and Development Act 2005*.

Reticulated sewerage

A network of sewers managed by a sewerage service provider that conveys sewage from any development or subdivision for disposal outside the boundary of a freehold title lot or survey strata.

Infrastructure may form part of a large centralised scheme, small decentralised scheme or hybrid systems that combine on-site primary treatment and off-site disposal.

Reticulated sewerage scheme

A network of sewers and associated sewage treatment plant managed by a sewerage service provider.

Rural land use

Land uses that are rural in nature and that support and are associated with primary production, basic raw material extraction, biodiversity conservation, natural resource management, public purposes and protection of landscapes and views. Does not include rural residential/rural living, which is not considered a rural land use.

Secondary treatment

Microbiological digestion and physical settling and filtering processes and decomposition of sewage constituents following primary treatment.

Secondary treatment system

A sewage treatment system which produces treated sewage of secondary standard, i.e. 20 mg/L of Biochemical Oxygen Demand (BOD), 30 mg/L of Total suspended solids (TSS) and 10 cfu/100 mL of Escherichia (E) coli (for example, an aerobic treatment unit).

Secondary treatment system with nutrient removal

A secondary treatment system that discharges treated sewage with phosphorus and nitrogen concentrations of less than 1mg/L and 10mg/L respectively.

Septic tank

Refer to primary treatment.

Sewage

Any kind of sewage, faecal matter or urine, and any waste composed wholly or in part of liquid. This may include trade waste.

Sewage sensitive areas

Defined as:

a) estuary catchments on the Swan and Scott Coastal Plains;

b) the Brockman River catchment;

c) land that drains to and is within two kilometres of Irwin Inlet, Wilson Inlet, Torbay Inlet, Manarup Lagoon, Lake Powell, Princess Royal Harbour and Oyster Harbour

d) land that drains to and is within two kilometres of the estuarine areas of the following:

- Dampier Creek (Broome)
- Hill River
- Irwin River (Mid West)
- Margaret River (South West)
- Murchison River
- Hardy Inlet
- Chapman River
- Walpole-Nornalup Inlet
- Wellstead Estuary
- Greenough River

e) land that drains to and is within two kilometres of the following coastal embayments: Cockburn Sound, Coral Bay, Cowaramup Bay, Flinders Bay, Geographe Bay, Jurien Bay, Koombana Bay, Mangles Bay, Peaceful Bay, Roebuck Bay, Shark Bay (south of the northern tip of Peron Peninsula) and Warnbro Sound;

f) within one kilometre up-groundwater- gradient and 250 metres down-groundwater-gradient of a significant wetland; or where the groundwater gradient is unknown or seasonably variable within one kilometre of the significant wetland;

g) habitats of specially protected water-dependent fauna and the area within one kilometre of groundwater-dependent threatened ecological communities and groundwater dependent priority ecological communities; and

h) wild rivers catchments.

Notes:

Site specific assessments undertaken during the land planning process may identify additional areas that are sensitive to sewage. Any potential impacts should be considered and managed on a case-by-case basis.

Refer to sewage sensitive area mapping accompanying this policy. Mapping is indicative. The sewage sensitive area boundaries may be refined through higher resolution mapping in accordance with the definition provided above.

Sewerage service provider

A person or entity that provides a sewerage service in accordance with the *Water Services Act 2012*.

Significant wetland

Includes Ramsar Wetlands; those listed in the Australian Government's Directory of Important Wetlands in Australia; wetlands categorised as Conservation Category in the Department of Biodiversity, Conservation and Attraction's Swan Coastal Plain geomorphic wetlands database, wetlands listed in the South Coast Significant Wetlands database and other wetlands that have been identified for protection during the land planning process.

Site and soil evaluation

An assessment of all relevant constraints and the risks to public health and the environment of an on-site sewage system in accordance with *AS/NZS 1547 On-site domestic wastewater management*.

Strata lot

One or more cubic spaces forming part of a lot in a strata scheme.

Strata plan

Has the meaning given under the *Strata Titles Act, 1985*, as amended.

Strata scheme

Has the meaning given under the Strata *Titles Act, 1985*, as amended.

Strategic Industrial Area

Areas zoned or planned for Strategic Industry, identified by the Department of Jobs, Tourism, Science and Innovation. Strategic Industrial Areas are planned industrial sites of significant economic and strategic importance to the State which provide buffered industrial land in strategic locations for the development of resource and export oriented industries, major utilities infrastructure and other strategic industries which may generate off-site impacts. Strategic Industrial Areas are formally recognised in planning schemes where they comprise an industrial core zoned as 'Strategic Industry' or similar and an appropriate statutory buffer.

Survey strata

A lot and any associated common property as shown on a registered survey strata plan prepared in accordance with section 4(1b) of the *Strata Titles Act 1985*, as amended.

Survey strata lot

Land that is shown as an ordinary lot consisting of two or more lots on a survey strata plan and does not include a lot shown as common property prepared in accordance with section 3 of the *Strata Titles Act, 1985*, as amended.

Survey strata plan

A registered survey strata plan prepared in accordance with section 4 (1b) of the *Strata Titles Act, 1985* as amended and which shows the whole or any part of the land comprised in the plan as divided into two or more lots.

Survey strata scheme

The manner of division of the land comprised in a survey strata scheme into lots and common property and the manner of the allocation of unit entitlements, rights and obligations among the lots.

Trade waste

Any wastewater, discharged from a business or industry, aside from that which comes from staff amenities or office facilities. Some trade waste may contain environmentally hazardous materials which must not be discharged into the environment (refer to the Environmental Protection (Unauthorised Discharges) Regulations 2004). Discharge of trade waste into a reticulated sewerage system is subject to approval from the sewerage service provider.
If trade waste is generated from a prescribed activity and discharged or disposed of in accordance with a licence under the EP Act 1986, the conditions of the licence have precedence over the requirements of this policy.

Threatened ecological community

An ecological community that has been endorsed by Western Australia's Environment Minister as being subject to processes that threaten to destroy or significantly modify it across much of its range and fits into one of the categories 'presumed totally destroyed','critically endangered', 'endangered' or 'vulnerable'.

Urban

Land zoned 'urban' or 'urban deferred' in a region scheme and/or land that can be subdivided under a local planning scheme to create lots less than one hectare for residential or commercial uses.

Water dependent fauna

Fauna which live predominantly or entirely in the water or which rely on aquatic habitats and their associated ecosystems for all or part of their life cycle.

Waterway

Any river, creek, stream or brook, including its estuary. This includes systems that flow permanently, seasonally or occasionally and parts of the waterway that have been modified. A waterway usually includes the floodplain; however; for the purpose of this policy, the floodplain is excluded.

Wellhead protection zone

The area within a public drinking water source area that surrounds a bore, as declared under Metropolitan Water Supply, Sewerage, and Drainage By-laws 1981 and defined via the Department of Water and Environmental Regulation's policy and drinking water source protection reports throughout the rest of the state. These zones are generally circular, with a 500 metre radius around each production bore in a Priority 1 area and a 300 metre radius around each production bore in Priority 2 and Priority 3 areas. The zones do not extend outside the boundary of the public drinking water source area.

SCHEDULE 1: Supporting information and requirements at various stages of the planning system

Planning proposals at various stages of planning approval are to be supported with information outlined below.

1. Sub-regional/district plans and local planning strategies

Sub-regional/district plans and local planning strategies should broadly describe the options for sewage management for proposed growth areas, highlighting opportunities and constraints of the environment and existing infrastructure. These should include, but are not limited to, identification of:

- public drinking water source areas;
- sensitive receiving environments including sewage sensitive areas, as defined in section 7 of this policy, waterways, resource enhancement wetlands, marine reserves[1] and karst systems;
- seasonal and long-term variations in groundwater levels;
- infrastructure limitations/requirements; and
- opportunities for recycled and alternative water supplies and fit-for-purpose use and management, particularly in areas where supply for public open space irrigation is limited.

This information may be incorporated into the Regional Water Management Strategy and/or District Water Management Strategy as appropriate.

2. Rezoning and local structure plan

Any application for rezoning of land through region or local planning schemes (including the lifting of urban or industrial deferment) and/or any local structure plan should specify how sewage will be treated and disposed. Where relevant, this should be accompanied by the information outlined below:

2.1 Proposals where a district or local water management strategy is required

The district or local water management strategy is to be prepared in accordance with *Better Urban Water Management* (WAPC 2008) and information about sewage disposal is to be incorporated.

This should include a site water balance and details on the proposed servicing strategy for water supply, sewage management and stormwater management.

2.2 Proposals involving connection to a new reticulated sewerage scheme

Where the future development is proposed to be connected to a reticulated sewerage scheme that is yet to be established is to be accompanied by the following:

- details of proposed sewerage system including:
  - method of treatment and disposal (technology and operation);
  - land required for sewerage infrastructure and disposal;
  - where infrastructure is located outside the subject land, describe how access will be secured;
  - buffer requirements and potential impact on nearby land; and
  - potential environmental issues and management.
- details and timing for regulatory approvals; and
- identification of potential service provider. It is acknowledged that it may not be feasible to obtain a water services licence in the early stages of the planning process.

The requirement to connect future development to a reticulated sewerage scheme operated by a licensed or exempted service provider should be included via provisions in the local planning scheme.

[1] Environment quality targets are outlined in management plans for Marine Parks and Reserves

2.3 Proposals providing for lots less than 1 hectare where reticulated sewerage may not be available (Assessment of best practicable option)

Where reticulated sewerage may not be available, planning proposals should be supported by an assessment of the best practicable option for sewerage servicing.

The information provided should be commensurate to the scale and nature of the proposal. For towns that do not have an established reticulated sewerage scheme, detailed information is unlikely to be required unless the scale of settlement expansion may warrant the provision of a new reticulated sewerage scheme. In other instances, the assessment should include:

- sewage treatment and disposal options, including but not limited to:
  - connection to an existing sewerage scheme. Where the subject land is remote from the development front, consideration should be given to delaying development until services are available;
  - development of a new reticulated scheme servicing a local area; or
  - on-site treatment and disposal.
- land use planning impacts:
  - identify if the lack of reticulated sewerage will restrict opportunities to intensify or change land uses in the future. This is particularly important where more intense land uses are provided for in a strategic plan prepared or endorsed by the Western Australian Planning Commission, the local planning strategy or local planning scheme;
  - identify if the lack of reticulated sewerage will jeopardise the provision of sewerage infrastructure to nearby land; and
  - for non-residential/industrial proposals, identify if land uses should be restricted based on volumes of sewage (including trade waste) that are likely to be generated.
- Public health and environmental impacts
  - identify potential impacts on sensitive receiving environments, including sewage sensitive areas, waterways, other wetlands, marine reserves[2], karst systems or habitat of a declared rare flora or fauna;
  - for non-residential/industrial proposals, consider the type of land uses provided for, and the contaminants likely to be present in trade waste;
  - where on-site sewage disposal is proposed and approval is likely to set a precedent for similar unsewered subdivision in the local catchment, cumulative impacts should be considered;
  - identify measures to reduce impacts; and
  - where on-site sewage disposal is considered, information from local government should be sought on the performance of on-site systems in the local area at the proposed density. The creation of lots less than 2000m^2 may not be supported where local government or referral agencies advise that on-site disposal in the local area has been problematic.
- Administrative impacts:
  - details of servicing/maintenance arrangements and mechanisms in place to support these arrangements.

[2] Environment quality targets are outlined in management plans for Marine Parks and Reserves

2.4 Where on-site sewage disposal is proposed

The long-term servicing needs of the area and possible future intensification of development needs to be considered where on-site sewage disposal is proposed. The applicant should demonstrate that on-site disposal will not prejudice this ability.

The applicant should provide a site and soil evaluation in accordance with *AS/NZS 1547 On-site domestic wastewater management* to demonstrate the site is suitable for long-term on-site sewage disposal in accordance with section 5 and Schedule 2 of this policy. The level of information required will be commensurate with the scale and nature of the proposal. At a minimum, this should include:

- identification of public drinking water source areas and sewage sensitive areas;
- identification of water resources and land affected by separation distances, as outlined in section 5.2.2 of this policy. Includes wellhead protection zones, reservoir protection zones, public and private drinking water bores, waterways, significant wetlands, drainage systems and land subject to flooding;

- site and soil conditions:
  - depth to groundwater and consistency with criteria contained in section 5.2.3 of this policy. Mapping may be required to show highest groundwater levels and groundwater gradients; and
  - nature and depth of soil (including soil category); and
  - slope and instability; and
  - climate; and
- capacity of site to accommodate a land application area in accordance with schedule 2 of this policy; and
- proposed on-site sewage system.

Where a drainage management plan is required, it should contain sufficient information to demonstrate:

- how separation from groundwater in accordance with 5.2.3 will be achieved;
- adequate separation between sewage disposal areas and water resources in accordance with 5.2.2; and
- that re-directed water will not impact upon surrounding properties or receiving water bodies. The best practice methodology for site and soil evaluation is provided in *AS/NZS 1547 On-site domestic sewage management*.

If secondary treatment systems are required, provisions to enforce their use should be included in scheme text.

Ensure any restrictions in land uses required to manage impacts of sewage disposal are reflected in scheme text.

Note:

> *on-site sewage treatment systems have the potential to affect native flora species. Declared Rare Flora (DRF) are protected under the Biodiversity Conservation Act 2016 (BC Act 2016). The taking of DRF is prohibited unless an application is approved under the BC Act 2016. The Department of Biodiversity, Parks and Attractions recommends proponents consider applying for a DRF permit if there is any activity within 50 of DRF that has the potential to impact upon the flora species*

3. Subdivision

3.1 Proposals where an Urban Water Management Plan is required

The urban water management plan should be prepared in accordance with *Better Urban Water Management* (WAPC 2008). This includes a site water balance and details on the proposed servicing strategy for water supply, sewage management and stormwater management.

3.2 For survey strata subdivision applications where connection to reticulated sewerage is proposed

Subdivision plans should demonstrate how each strata lot is to be connected to sewerage infrastructure.

3.3 For subdivision applications that propose connection to a reticulated sewerage scheme that is yet to be constructed

Provide:

- details of proposed sewage system including:
  - method of treatment and disposal (technology and operation);
  - land required for sewerage infrastructure and disposal (specify area and location). Where this is to be located outside the subject land, outline how access will be secured;
  - buffer requirements, including impact on nearby land; and
  - potential environmental issues and management;
- details and timing for regulatory approvals;
- identification of service provider. It is acknowledged that it may not be feasible to obtain a water services licence until after subdivision approval; and
- construction, operation and staging considerations.

3.4. For subdivision applications where on-site sewage disposal is proposed

The long-term servicing needs of the area and possible future intensification of development needs to be considered where on-site sewage disposal is proposed. The applicant should demonstrate that on-site disposal will not prejudice this ability.

A site and soil evaluation in accordance with *AS/NZS 1547 On-site domestic wastewater management* will generally be required in support of the application to demonstrate that the proposed land use and lot sizes are capable of accommodating on-site sewage disposal in accordance with section 5.2 and Schedule 2 of this policy. The level of information required will be commensurate to the scale and nature of the proposal. At a minimum, this should include:

- identification of public drinking water source areas and sewage sensitive areas;
- identification of water resources and land affected by separation distances, as outlined in section 5.2.2 of this policy. Includes wellhead protection zones, reservoir protection zones, public and private drinking water bores, waterways, significant wetlands, drainage systems and land subject to flooding;
- site and soil conditions:
  - depth to groundwater and consistency with criteria contained in section 5.2.3 of this policy. Mapping may be required to show highest groundwater levels and groundwater gradients; and
  - nature and depth of soil (including soil category);
  - slope and instability;
  - climate; and
- capacity of site to accommodate a land application area in accordance with schedule 2 of this policy; and
- proposed on-site sewage system.

Note:

> *A site and soil evaluation will generally be required prior to subdivision approval being issued. Where the responsible authority, in consultation with local government and relevant agencies is satisfied that the minimum site requirements will be met, and requires further information to determine the appropriate location for building envelopes or types of systems required, a site and soil evaluation may be required as a condition of subdivision.*

Depending on the nature of the proposal, the following information may also be required:

- details of any likely vegetation clearing, buffer requirement and/or site earthworks;
- a water balance analysis including drinking water, water for irrigation, stormwater/drainage, groundwater and trade waste where applicable;
- risks associated with disposal of sewage, including trade waste, such as type of land uses permitted and contaminants associated with the land uses; and
- information addressing any proposed fill or drainage works pursuant to 5.2.3.

Where there is existing development or infrastructure on the lot(s) or for survey strata, an indicative lot layout plan to demonstrate that the proposed lots are of a sufficient size to accommodate:

- on-site sewage system;
- an unencumbered land application area required to distribute treated sewage. The size of the land application area should be determined in accordance with the conversion factors prescribed in Table 3 contained in Schedule 2;
- on-site stormwater soak wells and setbacks;
- dwellings, outbuildings and associated setbacks;
- paved surfaces, including driveways; and
- setbacks from water resources.

4. Development

Any application for development which proposes the use of on-site sewage systems is to be supported by the following information.

4.1 Site plan

Site plan to demonstrate that the proposed lot is of a sufficient size to accommodate development and treat and dispose of sewage and contain associated buffers on-site, noting:

- identification of public drinking water source areas and sewage sensitive areas;
- identification of water resources and land affected by separation distances, as outlined in section 5.2.2 of this policy. Includes wellhead protection zones, reservoir protection zones, public and private drinking water bores, waterways, significant wetlands, drainage systems and land subject to flooding;

- features of the site including topography, soil type, depth to groundwater (note consistency with section 5.2.3 of this policy), remnant vegetation cover, any existing sewage management system;
- existing and proposed buildings and paved surfaces including driveways, verandas and alfresco areas;
- on-site sewage system and setbacks prescribed under Health(Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations and the *Code of Practice for the Design, Manufacture, Installation and Operation of Aerobic Treatment Units*;
- land application area to which effluent is disposed and associated setbacks. The size of the land application area is to be determined in accordance with the conversion factors prescribed in Table 2 contained in Schedule 2;
- on-site stormwater management areas (e.g. soak wells) and setbacks prescribed by the National Construction Codes; and
- rainwater tanks where appropriate.

4.2 Site and soil evaluation

Site and soil evaluations should be undertaken in accordance with *AS/NZS 1547 On-site domestic wastewater management*. The level of detail should be commensurate with the nature of the proposal.

4.3 Proposed servicing strategy

The proposed servicing strategy should be described, including

- the types and quantities of sewage that will be generated or disposed of as a result of all uses on the site. This is to include an estimate on the total number of persons per day to be accommodated on the site;
- the type of on-site system to be installed including the location, type and performance of the system;
- proposed method of stormwater management. A stormwater management plan may be required for large scale proposals; and
- maintenance activities required including all planned operational and equipment maintenance procedures summarised in a long-term plan which includes roles, responsibilities and timing.

Note:

Systems for the treatment of sewage must be approved by use by the Department of Health.

4.4 Non-Residential/Industrial development proposals

Additional information is required to support an application for non-residential/industrial development that will generate trade waste. This includes:

- details of the type and quantities of trade waste likely to be generated, including run-off from wash-down areas and other environmentally hazardous material;
- details of the proposed method of disposal of trade waste; and
- details of any contingency measures proposed to minimise the impacts of chemical spills and safely dispose of contaminated waters that may result from storms, fire, flood or equipment malfunction or vandalism. Information should include workforce training, site monitoring and emergency response facilities and protocols appropriate to the level of risk from the proposed use.

Note:

Trade waste may contain a range of environmentally hazardous materials that must not be discharged to the environment (refer to the Environmental Protection (Unauthorised Discharges) Regulations 2004 and Environmental Protection (Controlled Waste) Regulations 2004).

SCHEDULE 2:
Site requirements for on-site sewage systems

1 Minimum lot sizes for residential development in heavy soils

Table 1: Minimum lot sizes for residential development serviced by on-site sewage disposal in heavy soils located outside public drinking water source areas and sewage sensitive areas outside of Perth Metropolitan and Peel Region Scheme Areas.

Soil category[5]	Soil texture	Minimum lot sizes m² (R-code)[6]	
		Primary treatment	Secondary treatment
4	Clay loams	2,000 (R5)	1,000 (R10)
5	Light clays	4,000 (R2.5)	1,000 (R10)
6	Medium to heavy clay	Special design requirements and distribution techniques or soil modification procedures will be necessary. Refer to Table L1 of AZ/NZS 1547 for more details.	2,000 (R5)
-	Rock	Special design requirements and distribution techniques or soil modification procedures will be necessary.	

Refer to section 5.2 for minimum lot sizes in public drinking water source areas and sewage sensitive areas.

[5] Soil categories, extrapolated from Table 5.1 AS/NZS 1547, are to be determined by undertaking a site and soil evaluation (SSE) as per *AS/NZS 1547 On-site domestic wastewater management*.

[6] Minimum lot sizes are based upon area required to accommodate dwelling, primary on-site sewage system, land application areas and associated setback distances.

2 Determination of land application area (m²)

The size of the land application area should be determined in accordance with the conversion factors prescribed in Table 2 and *AS/NZS 1547 On-site domestic wastewater management* as follows:

1. Estimate hydraulic load (L/day):
   - occupancy rate (persons) x design loading rate (L/person/day)
2. Calculate land application area (m²):
   - hydraulic load (L/day) x conversion factor from Table 2

Table 2: Conversion factors to calculate the minimum required land application area for subdivision/ development (conversion factors are determined using a hydraulic load of 1 L/day.

Soil category	Soil texture	Conversion factors	
		Primary treatment	Secondary treatment
1	Gravels and sands	0.377	0.2
2	Sandy loams	0.377	0.2
3	Loams	0.477	0.25
4	Clay loams	0.689	0.286
5	Light clays	1.284	0.333
6	Medium to heavy clays	Special design requirements and distribution techniques or soil modification procedures will be necessary	0.5

3 Land application areas for single houses

Table 3: Land application areas for a single house (occupancy of 6 persons in a 5 bedroom house)

Soil category	Soil texture	Land application area (m^2) [7]	
		Primary treatment (includes area required for setbacks)	Secondary treatment (excludes setbacks)
1	Gravels and sands	339	180
2	Sandy loams	339	180
3	Loams	429	225
4	Clay loams	620	257
5	Light clays	1,156	300
6	Medium to heavy clays	Special design	450

This table may be used to inform residential subdivision applications. It is based upon Table 2. Different sized areas may be required at development or building stage in response to anticipated hydraulic load.

A sample calculation for determining the land application area for a primary treatment system in Soil Categories 1 and 2 is provided in the Explanatory Notes.

[7] The land application area has been determined using design loading rates for trenches and beds, extrapolated from Table L1 *AZ/NZS 1547 On-site domestic wastewater management*. Calculations used a hydraulic loading of 900litres/day, which is based on the occupancy of 6 persons in a 5 bedroom house and a sewage design flow of 150L/person/day. Values for primary treatment include setback distances. Note that values for secondary treatment exclude setback distances, which will vary depending on the system used.

4 General site features for on-site sewage disposal

Table 4: General site features for on-site sewage disposal

Site feature	Minimum requirement
Separation from groundwater – outside public drinking water source areas and sewage sensitive areas **(The minimum requirements for public drinking water source areas and sewage sensitive areas are found at Section 5.2 of this policy)**	Where land is not within a public drinking water source area or a sewage sensitive area[8], the discharge point of the on-site sewage system should be located the following distances above the highest groundwater level: • for loams and heavy soils, at least 0.6 metres • for gravels, at least one metre • for sands, at least 1.5 metres. Where a nutrient retentive secondary treatment system is used, at least 0.6 metres.
Land application area	A land application area should be provided for all development in accordance with tables 2 and 3 of this schedule for the disposal of sewage.
	The land application area excludes the area restricted to the distribution of treated sewage only and should be kept free of any temporary or permanent structures.
	Activities within the land application area shall not interfere with the function of the current and future land application system and people should avoid potential contact with effluent residues. Unless allowed for in the design, the land application area) should: • not be built on or paved in a manner which precludes reasonable access; • not be subject to vehicular traffic (other than a pedestrian-controlled lawnmower); • not be subject to regular foot traffic such as pathways and clothes line areas; and • should be kept in a manner which enables servicing and maintenance of the disposal system.
Gradient of the land application area	Where slope exceeds one in five (1:5), the land application area should be engineered to prevent run-off from the land application area. Surface contours should be provided on the site plan.
Location of land application area within building envelope	Local government may approve the location of land application areas outside building envelopes where proposed location meets requirements outlined above.

[8] The minimum separation distances for sewage sensitive areas and public drinking water source areas are provided in Section 5.2 of this policy.

SCHEDULE 3:
Localities outside perth metropolitan region scheme and peel region scheme areas with established reticulated schemes (as at 1/12/2017)

Albany	Cowaramup	Greenough	Manjimup	Prevelly
Augusta	Cranbrook	Halls Creek	Margaret River	Quairading
Australind	Cunderdin	Harvey	Marvel Loch	Quindalup
Beverley	Dalwallinu	Hopetoun	Meckering	Ravensthorpe
Binningup	Dalyellup	Horrocks	Merredin	Roebourne
Boddington	Dampier	Hyden	Moora	Seabird
Bootenal	Dardanup	Jerramungup	Morawa	South Hedland
Boulder	Denham	Jurien Bay	Mount Barker	Southern Cross
Boyanup	Denison	Kalbarri	Mukinbudin	Tambellup
Bremer Bay	Denmark	Kalgoorlie	Mullewa	Three Springs
Bridgetown	Derby	Kambalda	Munglinup	Tom Price
Brookton	Dongara	Karratha	Nannup	Toodyay
Broome	Donnybrook	Katanning	Narembeen	Varley
Bruce Rock	Dowerin	Kellerberrin	Narrogin	Wagin
Brunswick	Dumbleyung	Kojonup	Newdegate	Walpole
Bunbury	Dunsborough	Koolyanobbing	Newman	Wickepin
Burekup	Eaton	Koorda	Norseman	Wickham
Busselton	Emu Point	Kulin	Northam	Williams
Calingiri	Eneabba	Kununurra	Nyabing	Wiluna
Capel	Esperance	Lake Argyle	Ongerup	Wongan Hills
Carnarvon	Exmouth	Lake Grace	Onslow	Wundowie
Cervantes	Finucane Island	Lancelin	Pannawonica	Wyalkatchem
Christmas Island	Fitzroy Crossing	Laverton	Paraburdoo	Wyndham
Cocos Island	Geraldton	Ledge Point	Pemberton	Yerecoin
Collie	Gnarabup	Leeman	Picton	York
Coolgardie	Gnowangerup	Leinster	Pingelly	
Coral Bay	Goomalling	Leonora	Pingrup	
Corrigin	Greenhead	Lower King	Port Hedland	

SCHEDULE 4:
Model subdivision conditions, notifications and advice notes

1 Subdivision proposing reticulated sewerage

The Western Australian Planning Commission may issue subdivision approval subject to the following conditions and accompanying advice notes:

1. Condition:

Arrangements being made with [INSERT SERVICE PROVIDER] so that the provision of a reticulated sewerage scheme will be available to the lots shown on the approved plan of subdivision [INSERT SERVICE PROVIDER].

Advice notes:

a. In regard to Condition [INSERT VALUE], the landowner/applicant shall make arrangements with the (insert service provider) for the provision of the necessary services. On receipt of a request from the landowner/ applicant, a Land Development Agreement under Section 67 of the *Water Agencies (Powers) Act 1984* will be prepared by the (insert service provider) to document the specific requirements for the proposed subdivision.

Where creation of survey strata lots is proposed:

b. In regard to Condition [INSERT VALUE], it is the Commission's expectation that each strata lot be provided with its own suitable utility service connection, which is protected by easements where necessary. This is to ensure that each strata lot is development ready and does not result in the need to extend services over adjacent strata lots after titles have been created.

Where connection to a new reticulated sewerage scheme is proposed:

c. In regard to Condition [INSERT VALUE], The Western Australian Planning Commission will only clear these conditions upon written confirmation that the reticulated sewerage service has been provided in accordance with a licence issued by the Economic Regulation Authority, or a licensing

exemption granted by the Minister for Water; and the works required to provide a reticulated sewerage service have been completed to the satisfaction of the sewage service provider.

Where proposal is located in a public drinking water source area:

d. In regard to Condition [INSERT VALUE], temporary servicing arrangements in public drinking water source areas should be a last resort. If temporary sewage pumping arrangements are essential, they should be located as far away as possible from public drinking water bores. Best practice operations, including a spill pad around the tankering point and automated telemetry of sewerage levels, need to be in place to prevent overflows. Pre-development water quality monitoring program, including for pathogens, nutrients and other contaminants, should be in place. This information should be incorporated into the urban water management plan [delete where applicable]. Contact the Department of Water and Environmental Regulation for further advice.

2. Condition:

The provision of easements for existing or planned future water, sewerage and/or drainage infrastructure as may be required by the [INSERT SERVICE PROVIDER] being granted free of cost to that body. (INSERT SERVICE PROVIDER)

3. Condition:

The transfer of land for the purposes of the provision of water and sewerage infrastructure to be shown on the diagram or plan of survey (deposited plan) as a reserve and vested in the Crown under Section 152 of the *Planning and Development Act 2005*, such land to be ceded free of cost and without any payment of compensation by the Crown. (INSERT SERVICE PROVIDER)

2 Subdivision proposing on-site sewage disposal

The Western Australian Planning Commission may issue subdivision approval subject to the following conditions:

Where a secondary treatment system is not specifically required:

1. Condition:

A notification, pursuant to Section 70A of the *Transfer of Land Act 1893* is to be placed on the certificate(s) of title of the proposed lot(s). Notice of this notification is to be included on the diagram or plan of survey (deposited plan).
The notification is to state as follows:

'A reticulated sewerage service is not available to the lot(s).'
(Local government)

Where a secondary treatment system will be required:

2. Condition:

A notification, pursuant to Section 70A of the *Transfer of Land Act 1893* is to be placed on the certificate(s) of title of the proposed lot(s). Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:

'A reticulated sewerage service is not available to the lot(s). As such, an on-site secondary treatment and disposal system for sewage will be required. Therefore, the developable area of the lot is reduced. There are ongoing landowner obligations to ensure that the treatment and disposal system is regularly maintained in accordance with relevant health regulations. Contact the local government for further information.'
(Local government)

Where a secondary treatment system with nutrient removal will be required:

3. Condition:

A notification, pursuant to Section 70A of the *Transfer of Land Act 1893* is to be placed on the certificate(s) of title of the proposed lot(s). Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:

A reticulated sewerage service is not available to the lot(s). As such, an on-site secondary treatment and disposal system for sewage (which includes nutrient removal) will be required. Therefore, the developable area of the lot is reduced. There are ongoing landowner obligations to ensure that the treatment and disposal system is regularly maintained in accordance with relevant health regulations. Contact the local government for further information.' (Local government)

Where the Western Australian Planning Commission, after considering advice from referral agencies, is satisfied that proposed lots are capable of accommodating on-site sewage disposal, but require further information to inform future development, the condition below may be required. In all other instances, the site and soil evaluation will generally be required in support of the subdivision application:

4. Condition:

Prior to the commencement of subdivisional works, the landowner/applicant is to provide a site and soil evaluation to determine the type of on-site sewage treatment system required and the appropriate location for on-site sewage disposal. (Department of Health/Local government)

Advice note:

- The size and location of sewage disposal areas are to be consistent with Government Sewerage Policy. Best practice is provided in *Australian/New Zealand Standard 1547 On-site domestic sewage management*.

Where a substantial amount of fill is to be required to achieve separation distances from groundwater:

5. Condition:

A notification, pursuant to Section 70A of the *Transfer of Land Act 1893* is to be placed on the certificate(s) of title of the proposed lot(s). Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:

A reticulated sewerage service is not available to the lot(s). As such, an on-site sewage system will be required. Clean fill will be required in order to achieve separation distances between sewage disposal system and groundwater. (Local government)

3 Development proposing on-site sewage disposal

The local government may issue development approval subject to the following condition where grouped dwellings or multiple unit commercial or industrial development is proposed:

1. Condition:

The sewage treatment and disposal system for development must service each dwelling/unit and be owned and operated by a single person or entity contracted to provide the service or the strata company for the strata scheme. An acceptable maintenance program must be in place for the sewage treatment system and disposal area. (Local government)