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## WESTERN AUSTRALIAN PLANNING COMMISSION

### STATEMENT OF PLANNING POLICY 2.2

#### GNANGARA GROUNDWATER PROTECTION

Prepared under section 5AA of the Town Planning and Development Act 1928(As Amended) by the Western Australian Planning Commission and Issued with Approval of the Minister for Planning and His Excellency the Governor.



**STATEMENT OF PLANNING POLICY 2.2—Gnangara Groundwater Protection****CONTENTS**

1. Citation
2. Introduction and background
  - 2.1 Public drinking water source protection classifications and public drinking water guidelines.
3. Application of the policy
4. Policy objectives
5. Policy measures
6. Implementation
  - 6.1 Development control and Land Use Table 1.
  - 6.2 Other uses and local government town planning schemes
  - 6.3 Other development control measures in public drinking water source areas
7. Existing uses
8. Interpretations

**APPENDIX 1**

Land Use Table 1—Land use compatibility guidelines in public drinking water source areas

**BIBLIOGRAPHY****FIGURES**

Figure 1—Policy area for Statement of Planning Policy No 2.2—Gnangara Groundwater Protection.

**1. Citation**

This policy may be cited as the Statement of Planning Policy No 2.2 Gnangara Groundwater Protection and is prepared under section 5AA of the *Town Planning and Development Act 1928* (as amended).

**2. Introduction and background**

A large proportion of Perth's population and urban development is situated over the groundwater resources of the Jandakot and Gnangara groundwater mounds. These mounds are extensively used for public and private water supplies; they are a vital groundwater and ecological resource contributing to biodiversity, providing for limited recreational uses and supporting many natural features such as wetlands, wildlife populations and ecological processes. Approximately 50 per cent of Perth's public drinking water supply comes from the Jandakot and Gnangara groundwater sources. Future development of the city will be dependent on the availability of adequate potable groundwater supplies.

The main purpose of the policy is to prevent, control or manage development and land use changes in the policy area that are likely to cause detrimental effects to the groundwater resource.

Recognising the need to protect this resource and maintain environmental values, the state government set up a Select Committee in 1994 to examine the relationship between metropolitan growth and development. It also looked at the need to protect Perth's unique groundwater resources for current and future drinking water supplies.

The Select Committee's report *Metropolitan Development and Groundwater Supplies* (1994) recommended the Metropolitan Region Scheme be amended to facilitate the identification and zoning/reservation of land for groundwater protection purposes. This was to ensure public drinking water supplies are protected from contamination by new development. It also recommended that legally approved land use activities needed to be recognised and have a right to continue.

In response to the Select Committee's recommendations, the Western Australian Planning Commission (WAPC) prepared and implemented the Jandakot land use and water management strategy and gazetted the Jandakot Groundwater Catchment Protection Amendment 981/33 and Statement of Planning Policy No 6 Jandakot Groundwater Protection Policy.

Amendment 981/33 introduced the Water Catchments reservation, corresponding to the priority 1 water source protection areas, and the Rural-Water Protection zone, corresponding to the priority 2 water source protection areas for the Jandakot public drinking water supply area into the Metropolitan Region Scheme.

The Gnangara land use and water management strategy, released in January 2001, provides the strategic planning framework for implementing groundwater protection measures over the public drinking water resource areas in the Gnangara, Mirrabooka, and Wanneroo underground water pollution control areas over the Gnangara mound.

With the adoption of the Gnangara strategy by state government, the existing Statement of Planning Policy No 2.2 Gnangara Mound Crown Land needed to be reviewed and updated.

The policy will help local government, land development proponents and the public to ensure that land use change and development over the Gnangara mound is compatible with the long-term use of the groundwater for public consumption.

The policy provides guidance on the compatibility of land uses in priority 1, 2 and 3 source protection areas in the underground water pollution control areas and guidance on planning requirements that need to be considered before rezoning, development, or subdivision can proceed in the policy area.

This policy will replace the existing Statement of Planning Policy No 2.2 Gnangara Mound Crown Land and be implemented by the WAPC, other government agencies and local government in the preparation of local and regional planning schemes and strategies, and in decision-making.

In the Metropolitan Region Scheme and underground water pollution control areas over the Gnangara mound—

- Priority 1 water source protection areas will be reserved for Water Catchments;
- Priority 2 water source protection areas will be zoned for Rural–Water Protection; and
- Priority 3 water source protection areas will remain as their existing zone or reserve.

In the underground water pollution control areas, outside the Metropolitan Region Scheme, priority 1, 2 and 3 source protection areas should be designated as special control areas in local town planning schemes or in accordance with the recommendation of a land use and water management strategy published by the WAPC. Special control areas have been included in the WAPC's *Model Scheme Text* (1999) and are an effective tool to implement measures to protect public water supply sources outside the Metropolitan Region. This is because the provisions to protect water sources are in addition to the normal reservations and zoning provisions that apply and such provisions are, therefore, more effectively applied as an overlay rather than a specific zone or reserve.

This policy complements the administration of environmental protection and groundwater resource protection controls and policies administered by the Environmental Protection Authority (EPA) and the Department of Environment (DoE).

The policy allows for planning applications in the policy area, where necessary, to be referred to the DoE for advice prior to determination by the WAPC or local government.

Proposals submitted for planning approval will be judged on their merits. Proponents who wish to deviate from the contents of this policy should provide justification. Recognition of the policy in this way is not meant to affect the powers and functions of either the EPA or the DoE.

Gnangara Groundwater Protection Metropolitan Region Scheme Amendment 1036/33 has been prepared with this policy, to ensure a co-ordinated government approach to land use control in the policy area.

The amendment has been referred to the EPA, which has determined not to assess it. This means that the amendment is deemed assessed for the purposes of the *Environmental Protection Act 1986*. Therefore, any proposals in the policy area would not require referral to the EPA, provided they were consistent with the amendment and this policy.

## **2.1 Public drinking water source protection classifications and public drinking water guidelines**

A priority classification system exists for all gazetted public drinking water source areas in order to restrict or manage activities that may cause groundwater pollution or significant contamination in accordance with the following categories.

- Priority 1 source protection areas are defined and managed to ensure there is no degradation of the water resource in these areas. This is the highest level of protection for the water source and normally will apply to land owned by the state, and is characterised by low-intensity and low-risk land use, such as forestry. Protection of the public water supply outweighs virtually all other considerations in respect to the use of this land. Priority 1 source protection areas are managed in accordance with the principle of risk avoidance.
- Priority 2 source protection areas are defined to ensure that there is no increased risk of pollution to the water source. These areas are declared over land where low-risk development already exists. Protection of public water supply sources is a high priority in these areas. Priority 2 areas are managed in accordance with the principle of risk minimisation and conditional development is allowed.
- Priority 3 source protection areas are defined to manage the risk of pollution to the water source. These areas are declared over land where water supply sources need to co-exist with other land uses such as residential, commercial and light industrial developments. However, there are some restrictions on potentially high polluting uses. Protection of priority 3 areas is otherwise achieved through management guidelines for land use activities. If the water source does become contaminated then water may need to be treated or an alternative water source found.

The DoE will also have regard to the relevant parameters, standards and criteria set out in the *Australian Drinking Water Guidelines* published by the National Health and Medical Research Council to determine potential detrimental impacts and in providing advice on land use and development proposals.

### **3. Application of the policy**

This policy applies only to the Gnangara, Wanneroo and Mirrabooka underground water pollution control areas as recommended in the Gnangara strategy and shown in Figure 1.

It applies to all land use activities on zoned and reserved land, recreational land uses, and public purpose undertakings in the policy area.

The policy area extends into the Cities of Wanneroo and Swan and the Shires of Gingin and Chittering.

### **4. Policy objectives**

The objectives of the policy are to—

- 4.1 Ensure that all land use changes in the policy area are compatible with the long-term protection and management of groundwater quality and quantity for public drinking water supply, in accordance with priority source protection area classification objectives;
- 4.2 Protect groundwater quality and quantity in order to maintain the dependent ecosystems, ecological values and integrity of wetlands and native vegetation, in accordance with recognised conservation values; and
- 4.3 Protect and/or enhance the quality and quantity of groundwater, in accordance with accepted water quality guidelines and standards for the following uses—
  - domestic human use
  - industry
  - agriculture
  - recreation and aesthetics.

### **5.0 Policy measures**

5.1 Approval of land use and development in all priority water source protection areas, in the policy area and in the underground water pollution control areas, that has the potential to detrimentally affect the quality and quantity of public drinking water supplies should be guided by Land Use Table 1 land use compatibility guidelines in public drinking water supply areas (see Appendix 1). Advice should also be sought from the DoE and, where necessary the Health Department of WA, where such land uses can be satisfactorily managed to prevent potential detrimental impacts.

5.2 The underground water pollution control areas should be identified in all local and regional planning schemes and strategies as follows.

5.2.1 In the Perth Metropolitan Region, local government town planning schemes, regional schemes, and local and regional strategies, priority 1 and 2 source protection areas should be shown as Water Catchments reservations and Rural-Water Protection zones (or similar) respectively, in accordance with figure 1. Priority 3 areas should remain as their existing zone or reserve.

5.2.2 Outside the Perth Metropolitan Region, all priority water source protection areas in underground water pollution control areas should be shown as special control areas in local government town planning schemes and local and regional strategies. This should also be the case with the recommendations of any relevant land use and water management strategy published by the WAPC or any water source protection plan approved by the DoE. The special control areas provisions should provide for referral of planning applications to the DoE for advice and set out the relevant considerations in determining planning applications in these areas.

5.3 In priority 1 source protection areas in the policy area, there is a presumption against the zoning of land for residential, special residential, special rural, industrial or commercial uses or the subdivision of land. Any other zones incompatible with priority 1 objectives should not be considered.

5.4 In priority 2 source protection areas the zoning to special rural, rural living or rural-residential or other similar zones, the subdivision of land and land use development proposals, may be approved in the policy area, both in the Perth Metropolitan Region and outside it, provided the proposal:

- 5.4.1 Conforms with the priority classification objective and appropriate water quality standards;
- 5.4.2 Is based on land capability/suitability assessment and includes management measures to ensure that the risk of contamination to the groundwater resource is minimised;

5.4.3 Incorporates provisions or conditions to—

- prohibit unnecessary clearing and promote revegetation;
- protect landscape features, vegetation and significant wetlands with recognised conservation or social values;
- include nutrient management and drainage plans incorporating best practice management; and
- maximise the use of appropriate water sensitive urban design best management practices. Conservation reserves and conservation category wetlands are not appropriate sites for stormwater disposal or as biological wetland filters.

5.4.4 Does not result in the creation of lots less than 2 hectares in areas zoned rural living or, equivalent to 4 hectares in areas zoned rural<sup>1</sup>.

5.4.5 Can demonstrate that the necessary approvals and licences for groundwater supplied from bores or wells have been obtained from the DoE.

It will also be necessary to comply with all other relevant planning and environmental requirements.

5.5 Exception to the above may be considered where it can be demonstrated to the WAPC that the risk of contamination to the groundwater resource is not increased. In that case, subdivisions with an average 2 hectare (rural living) or 4 hectare lot size (rural) may be approved, subject to other planning and environmental requirements being satisfied.

Where an approved subdivision has an average lot size greater than stated in this policy, the WAPC may impose a condition requiring that an appropriate covenant or caveat be placed on the certificate of title to indicate that further subdivision of the residual or larger lots would not be approved.

5.6 Based on their merits, the WAPC may approve, on advice from the DoE, the Health Department and the EPA, other forms of development and subdivision, such as cluster subdivisions and alternative wastewater treatment and effluent disposal systems.

The onus will rest with the developer to provide sufficient technical and engineering evidence, to the satisfaction of the appropriate government agencies. The developer will need to prove that alternative development proposals and wastewater and effluent disposal systems, will be suitable and conform to the water quality standards for the relevant priority water source protection area.

5.7 The use of traditional on-site effluent disposal for new developments in the priority 1 and 2 source protection areas, in the policy area, should only be used if:

5.7.1 Factors such as soil type, permeability, vegetation cover and system design have been investigated and proven to be suitable;

5.7.2 At least a 1.2 metre vertical separation exists between the underside of the wastewater disposal system base and the highest known water table, in accordance with government sewerage policy and health and environmental regulations; □

5.7.3 There is at least a 100 metre horizontal separation between the disposal system and the nearest watercourse, wetland or well-head protection zone of a water supply production bore; and there is agreement by the DoE, Health Department, local government and other relevant decision-making authorities.

## 6. Implementation

Implementation of this policy will be through the processing of subdivision and development applications; the preparation of strategic plans, local planning strategies, regional and local statutory schemes, conservation and management plans and other relevant plans or guidelines.

### 6.1 Development control and Land Use Table 1

Compatibility of land uses in priority 1, 2 and 3 water source protection areas in the policy area are shown in Land Use Table 1 (see Appendix 1). Local government and government agencies should have regard to this policy and to the land use compatibility advice in table 1 in planning decision-making.

#### 6.1.1 Compatible land uses—priority 1 water source protection areas

Most land uses are incompatible in priority 1 water source protection areas.

All planning applications for land in a priority 1 water catchments reservation shall be referred to the WAPC for determination. Where appropriate, the WAPC will seek the advice of DoE and other government agencies prior to making a determination.

Essential transport infrastructure and most public uses in national and regional parks and nature reserves may be acceptable in the policy area provided best management practices are implemented in the design, construction and management of roads and other transport infrastructure and public use facilities in consultation with the DoE.

#### 6.1.2 Compatible land uses—priority 2 and priority 3 water source protection areas

A wider range of land uses and development is acceptable or compatible with conditions in priority 2 and priority 3 water source protection areas.

The local government will normally be responsible for development control and may refer applications to the DoE for advice and seek advice from other appropriate government agencies where warranted, prior to determination.

<sup>1</sup> Subdivision approval is subject to other planning and environmental requirements being satisfied. The minimum lot sizes of 2 hectares and 4 hectares referred to are for both sewered and non-sewered subdivision and is not of right. These minimum lot sizes are based on international and national research that shows risks of contamination increase with intensified land use and human settlement (*The Select Committee On Metropolitan Development and Groundwater Supplies* (1994)). Although reticulated sewerage may lessen the risks attributed to on-site wastewater and effluent disposal, other risks related to greater density of occupation significantly impact the permeable sandy soils of the Swan Coastal Plain. These include increased garden fertiliser, pesticide and other household chemical use, road run-off, animal waste and the overall cumulative impacts of closer human settlement. Consequently, there will be a presumption against the intensification of land use through subdivision below the minimum lot size specified by this policy.

#### 6.1.3 Conditional land uses—priority 1, 2 and 3 water source protection areas

Where an application is made for approval of a “compatible with conditions” land use as defined in Land Use Table 1, in priority 1, 2 and 3 water source protection areas, the following procedure should apply.

Both in and outside the Metropolitan Region Scheme area, local government should refer development applications to the DoE for advice before making a determination and should have regard to their recommendation in its decision on the application.

#### 6.2 Other land uses and local government town planning schemes

Uses not mentioned in Land Use Table 1 (see Appendix 1) are deemed to be incompatible and should not be introduced into the list of permissible or discretionary uses in the policy area in a town planning scheme or amendment unless agreed to by the WAPC in consultation with the DoE. Exceptions may be considered where a town planning scheme is being reviewed and the subject use is currently a permitted or discretionary use in that scheme.

#### 6.3 Other development control measures in public drinking water source areas

In addition to this policy and the priority classification system (see section 2.1), the DoE has identified well-head protection zones to protect water sources from direct contamination in the immediate vicinity of production wells. Well-head protection zones are subject to control under the *Metropolitan Water Supply Sewerage and Drainage Act 1909* by-laws.

Well-head protection zones are usually circular, with a radius of 500 metres in priority 1 areas and 300 metres in priority 2 and 3 areas. Well-head protection zones do not extend outside public drinking water source areas. Special conditions, such as restrictions on storage and use of potential contaminants and wastewater disposal systems may apply in these zones. Local governments should consult with the DoE on proposals in well-head protection zones.

Proposals are subject to the *Metropolitan Water Supply Sewerage and Drainage Act 1909* by-laws controlling underground water pollution control areas. The by-laws may require the issue of a permit by the DoE for certain activities to be undertaken in the policy area. The by-laws are available from the DoE.

### 7 Existing uses

This policy does not interfere with the right of existing land uses to be continued at their existing approved levels of activity or of landowners to sell their properties or any new landowners to carry on the existing approved land uses and levels of activity. Landowners will be encouraged by the DoE to progressively adopt best management practice to minimise contamination of the groundwater and environment.

### 8. Interpretations

#### contamination

The occurrence of substances in soil or groundwater at concentrations above background levels which pose, or have the potential to pose, an unacceptable risk to human health or the environment.

#### development

Development has the same meaning given to the term in the *Town Planning and Development Act 1928*.

#### groundwater

Water located below the surface of the ground including surface expressions of groundwater such as lakes and wetlands.

#### land use

The active or passive use to which the land is put by its owner or lessee or occupier.

#### Metropolitan Region Scheme

The Metropolitan Region Scheme was made pursuant to the *Metropolitan Region Town Planning Scheme Act 1959* published in the *Government Gazette* of 9 August 1963 and is amended from time to time.

#### native vegetation

Any plant species that is indigenous to the policy area.

#### nutrient

Any chemical that provides nourishment for a living organism. Well-known nutrients include the macro-nutrients of nitrogen, phosphorus and potassium.

#### reserve

Any land reserved for a public purpose.

#### town planning scheme

Town Planning Scheme has the same meaning given to the term in the *Town Planning and Development Act 1928*.

#### underground water pollution control area

An area constituted under Section 57A of the *Metropolitan Water Supply, Sewerage and Drainage Act 1909* for the protection of drinking water quality.

#### wetland

Land in the policy area that is subject to permanent or seasonal inundation or water-logging, whether by water that is fresh, brackish or saline, or flowing or static, but does not include estuaries, drains or their tributaries, dams or artificial impoundments.

**APPENDIX 1 LAND USE TABLE 1—Land use compatibility guidelines in public drinking water source areas**

Model Scheme Text & interpreted type of land use	P1 areas	P2 areas	P3 areas
<b>Agriculture—extensive</b>			
- pastoral leases	Compatible with conditions	Acceptable	Acceptable
- floriculture (non irrigated), stock grazing (excluding pastoral leases) and broad hectare cropping,	Incompatible	Compatible with conditions (see notes 11, 12)	Acceptable
<b>Agriculture- intensive</b>			
- aquaculture (fish, plants and crustaceans)	Incompatible	Compatible with conditions	Compatible with conditions
- orchards; production nurseries—potted plants; viticulture—wine and table grapes	Incompatible	Compatible with conditions	Acceptable
- floriculture; market gardens (see note 24); turf farms	Incompatible	Incompatible	Compatible with conditions
- hydroponic plant growing	Incompatible	Compatible with conditions	Compatible with conditions
- plant nurseries/garden centres	Incompatible	Compatible with conditions (see note 2)	Acceptable
<b>Agro-forestry</b>	Incompatible	Compatible with conditions	Acceptable
<b>Amusement parlour</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Animal establishment</b>			
- animal saleyards and stockyards (see note 13)	Incompatible	Compatible with conditions (see note 2)	Compatible with conditions (see note 2)
- apiaries	Compatible with conditions	Acceptable	Acceptable
- catteries	Incompatible	Acceptable	Acceptable
- dairy sheds	Incompatible	Compatible with conditions (see notes 2, 3, 12)	Compatible with conditions (see note 3)
- dog kennels	Incompatible	Compatible with conditions	Compatible with conditions
- equestrian centres (see note 17)	Incompatible	Incompatible	Acceptable
- feedlots, intensive outdoor livestock holding	Incompatible	Incompatible	Compatible with conditions
- stables (see note 18)	Incompatible	Compatible with conditions	Acceptable
<b>Animal husbandry- intensive</b>			
- piggeries	Incompatible	Incompatible	Incompatible
- poultry farming—housed	Incompatible	Compatible with conditions	Compatible with conditions
<b>Bed and breakfast</b> (accommodating a maximum of 6 guests)	Compatible with conditions (see notes 6, 16)	Acceptable (see note 23)	Acceptable
- farm stay accommodation, rural chalets)	Compatible with conditions (see notes 6, 16)	Compatible with conditions (see note 4)	Acceptable
<b>Betting agency</b>	Incompatible	Compatible with conditions (see note 2)	Acceptable (see note 1)
<b>Caravan park</b>	Incompatible	Incompatible	Compatible with conditions (see note 1)

Model Scheme Text & interpreted type of land use	P1 areas	P2 areas	P3 areas
<b>Caretakers dwelling</b>	Compatible with conditions (see note 2)	Compatible with conditions	Acceptable
<b>Car park</b>	Incompatible	Compatible with conditions (see note 2)	Acceptable
<b>Cemeteries</b>	Incompatible	Incompatible	Compatible with conditions
<b>Child care premises</b>	Incompatible	Compatible with conditions (see note 2)	Acceptable (see note 1)
<b>Cinema/ theatre</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Civic use</b>	Incompatible	Compatible with conditions (see note 2)	Acceptable (see note 1)
<b>Club premises</b>			
- sporting or recreation clubs	Incompatible	Compatible with conditions	Acceptable (see note 1)
- health centres	Incompatible	Incompatible	Acceptable (see note 1)
<b>Community purpose</b>			
- community halls	Incompatible	Compatible with conditions (see note 2)	Acceptable
- irrigated golf courses or recreational parks	Incompatible	Incompatible	Compatible with conditions (see note 11)
- motor-sports (permanent racing facilities)	Incompatible	Incompatible	Compatible with conditions
- public swimming pools/ aquatic centres	Incompatible	Incompatible	Compatible with conditions
- rifle ranges	Incompatible	Compatible with conditions	Acceptable
<b>Consulting rooms</b>	Incompatible	Compatible with conditions (see note 2)	Acceptable (see note 1)
<b>Convenience store</b>	Incompatible	Compatible with conditions (see note 2)	Acceptable (see note 1)
<b>Corrective institution</b>	Incompatible	Incompatible	Compatible with conditions (see note 1)
<b>Educational establishment</b>			
- community education centres, scientific research institution	Compatible with conditions (see note 2)	Compatible with conditions (see note 2)	Acceptable (see note 1)
- primary / secondary schools, tertiary education facilities	Incompatible	Incompatible	Acceptable (see note 1)
<b>Exhibition centre</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Family day care</b>	Incompatible	Acceptable (see note 19)	Acceptable (see note 1)
<b>Fast food outlet</b>	Incompatible	Incompatible	Acceptable (see note 1)

Model Scheme Text & interpreted type of land use	P1 areas	P2 areas	P3 areas
<b>Forestry</b> (native forest/silviculture/tree farming)	Compatible with conditions (see note 11)	Compatible with conditions (see note 11)	Acceptable
<b>Fuel depot</b> (storage/transfer)	Incompatible	Incompatible	Compatible with conditions
<b>Funeral parlour</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Home business</b>	Incompatible	Acceptable (see note 20)	Acceptable (see note 1)
<b>Home occupation</b>	Compatible with conditions (see note 15)	Acceptable (see note 21)	Acceptable (see note 1)
<b>Home office</b>	Compatible with conditions (see note 15)	Acceptable	Acceptable
<b>Home store</b>	Incompatible	Compatible with conditions	Acceptable (see note 1)
<b>Hospital</b>	Incompatible	Incompatible	Compatible with conditions (see note 1)
<b>Hotel</b> (includes hotels, hostels, resorts)	Incompatible	Incompatible	Acceptable (see note 1)
<b>Industry</b>			
- abattoirs	Incompatible	Incompatible	Incompatible
- cottage	Compatible with conditions	Compatible with conditions	Acceptable
- drinking water treatment plant	Compatible with conditions	Compatible with conditions	Compatible with conditions
- extractive, includes construction/mining camps (see note 10)	Compatible with conditions	Compatible with conditions	Compatible with conditions
- food processing, dairy product factories, breweries	Incompatible	Incompatible	Compatible with conditions (see note 1)
- general (chemical manufacture/formulation, dry cleaners, dye works, laboratories, photo-processors)	Incompatible	Incompatible	Compatible with conditions (see note 1)
- general (metal production/ finishing, pesticide operator depots, heavy or energy industry, petroleum refineries)	Incompatible	Incompatible	Incompatible
- general (concrete batching, cement products, fertiliser manufacture/ bulk storage, wrecking)	Incompatible	Incompatible	Compatible with conditions
- general (mineral processing)	Incompatible	Incompatible	Compatible with conditions (see note 9)
- light industry	Incompatible	Incompatible	Compatible with conditions (see note 1)
- milk transfer depots	Incompatible	Incompatible	Compatible with conditions
- mining (includes mineral and energy exploration, oil or gas extraction / decontamination for transport)	Compatible with conditions (see note 9)	Compatible with conditions (see note 9)	Compatible with conditions (see note 9)
- mining (tailings dams)	Incompatible	Incompatible	Compatible with conditions (see note 9)

Model Scheme Text & interpreted type of land use	P1 areas	P2 areas	P3 areas
- mining (includes construction/mining camps), (see note 10)	Compatible with conditions	Compatible with conditions	Compatible with conditions
- rural (animal product rendering works, tanneries, wool scours)	Incompatible	Incompatible	Incompatible
- rural (farm supply centres, manure stockpiling/ processing facilities)	Incompatible	Compatible with conditions (see note 2)	Compatible with conditions
- rural (forestry products processing—chip mills, pulp/paper, timber preservation, wood/ fibre works, composting/ soil blending—commercial)	Incompatible	Incompatible	Compatible with conditions
- service industry	Incompatible	Incompatible	Compatible with conditions
<b>Landfill</b> (solid waste disposal)			
- class I (refer also to 'Storage—used tyres' advice)	Incompatible	Incompatible	Compatible with conditions
- class II or III	Incompatible	Incompatible	Incompatible
- class IV or V	Incompatible	Incompatible	Incompatible
<b>Lunch bar</b>	Incompatible	Compatible with conditions (see note 2)	Acceptable (see note 1)
<b>Major transport infrastructure</b> (roads, railways)	Incompatible	Compatible with conditions (see note 14)	Acceptable
<b>Marina</b> (includes boat moorings and servicing)	Incompatible	Incompatible	Compatible with conditions
<b>Marine filling station</b> (boat fuelling)	Incompatible	Incompatible	Compatible with conditions
<b>Market</b> (food; general produce; second-hand goods)	Incompatible	Incompatible	Acceptable (see note 1)
<b>Medical centre</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Motel</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Motor vehicle, boat or caravan sales</b> (sales yards)	Incompatible	Incompatible	Acceptable (see note 1)
<b>Motor vehicle repair</b>	Incompatible	Incompatible	Compatible with conditions
<b>Motor vehicle wash</b>	Incompatible	Incompatible	Compatible with conditions
<b>National and regional parks and nature reserves</b>	Acceptable	Acceptable	Acceptable
<b>Night club</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Office</b>	Incompatible	Compatible with conditions	Acceptable (see note 1)
<b>Park home park</b>	Incompatible	Incompatible	Compatible with conditions (see note 1)
<b>Place of worship</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Plantation</b>	Compatible with conditions (see note 11)	Compatible with conditions (see note 11)	Acceptable
<b>Reception centre</b>	Incompatible	Incompatible	Acceptable (see note 1)

Model Scheme Text & interpreted type of land use	P1 areas	P2 areas	P3 areas
<b>Recreation</b> — private (within non-designated recreation areas on Crown land)	Incompatible	Incompatible	Acceptable
<b>Residential building</b>			
- house	Compatible with conditions (see note 16)	Acceptable (see note 4)	Acceptable (see note 1)
- group dwellings (aged and dependent persons)	Incompatible	Incompatible	Acceptable (see note 1)
<b>Restaurant</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Restricted premises</b> (adult interests)	Incompatible	Incompatible	Acceptable (see note 1)
<b>Rural pursuit</b>	See Agriculture, Animal establishment or husbandry		
<b>Service station</b> (includes aircraft, automotive repairs, boats, mechanical plant, service stations at transport and municipal works depots)	Incompatible	Incompatible	Compatible with conditions (refer to note 1)
<b>Shop</b>	Incompatible	Compatible with conditions (see note 2)	Acceptable (see note 1)
<b>Showroom</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Storage</b>			
- used tyres (see note 22)	Incompatible	Incompatible	Incompatible
- chemical storage in under ground tanks	Incompatible	Incompatible	Compatible with conditions
- chemical storage in above ground tanks	Incompatible	Compatible with conditions	Compatible with conditions
<b>Tavern</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Telecommunications infrastructure</b>	Compatible with conditions	Compatible with conditions	Compatible with conditions
<b>Toilet blocks and change rooms</b>	Compatible with conditions (see note 2)	Compatible with conditions	Acceptable
<b>Trade display</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Veterinary centre</b>	Incompatible	Compatible with conditions (see note 2)	Compatible with conditions (see note 1)
<b>Warehouse</b>	Incompatible	Compatible with conditions (see note 2)	Compatible with conditions (see note 1)
<b>Waste transfer station</b> (includes recycling depots)	Incompatible	Incompatible	Compatible with conditions
<b>Wastewater infrastructure</b>			
- sewerage—gravity sewers	Incompatible	Incompatible	Acceptable
- sewerage—pressure mains	Incompatible	Compatible with conditions	Acceptable
- sewer pump stations	Incompatible	Compatible with conditions	Compatible with conditions
- treatment plants, wastewater disposal to land	Incompatible	Incompatible	Compatible with conditions

Model Scheme Text & interpreted type of land use	P1 areas	P2 areas	P3 areas
- wastewater injection into the ground (see note 25)	Incompatible	Incompatible	Incompatible
Water treatment plants (drinking)	See Industry		
Winery (includes wine tasting facilities)	Incompatible	Compatible with conditions (see notes 3 & 5)	Compatible with conditions (see note 3)

**Table recommending compatibility of land subdivision within public drinking water source areas—**

Note—This table reflects the recommended size of a subdivision based on the existing zoning and the priority classification area status of land. It should be noted that town planning scheme provisions for specific zones and reserves will take precedent over the following recommended lot sizes.

Form of subdivision (specific to current zoning)	P1 areas	P2 areas	P3 areas
<b>Rural subdivision</b>			
- to a lot size of 4 hectares or greater	Incompatible	Acceptable	Acceptable
- to a lot size less than 4 hectares	Incompatible	Incompatible	Incompatible
<b>Special rural subdivision</b>			
- to a lot size of 2 hectares or greater	Incompatible	Compatible with conditions (see notes 7 & 8)	Compatible with conditions (see note 8)
- to a lot size between 1 and 2 hectares	Incompatible	Incompatible	Compatible with conditions (see notes 7 & 8)
- to a lot size less than 1 hectare	Incompatible	Incompatible	Compatible with conditions (see note 7)
<b>Urban subdivision</b>	Incompatible	Incompatible	Acceptable (see note 1)
<b>Industrial subdivision</b>	Incompatible	Incompatible	Acceptable (see note 1)

**Explanatory notes related to land uses described the tables—**

The following notes provide interpretive information based on the scale or type of development described in the preceding tables. They do not list all the conditions that could apply to any activity or development.

1. Must be connected to deep sewerage, except where exemptions apply under State Government Sewerage Policy. The policy recognises that sewer connection may be impractical in some areas. Under these circumstances maximum wastewater loadings (based on people/ hectare) apply linked to the management priority of the site.
2. The land use is normally incompatible, but may be conditionally approved where this facility is consistent with approved State and local government planning strategies or schemes.
3. The land use must incorporate best environmental management practices compatible with the management strategy for the designated priority area defined in the relevant source protection plan.
4. In priority 2 areas: conditions may apply to density of dwellings (ie hectares per dwelling).
5. Size of the grape crush shall not exceed 500 tonnes per year.
6. May be approved if occupancy is of equivalent size to a single dwelling household (ie less than 10 people—defined by capacity of a septic tank based on-site wastewater treatment system).
7. An average, rather than minimum, lot size may be accepted if the proponent can demonstrate that the water quality objectives of the source protection area are met, and caveats/memorials are placed on titles of specified blocks stating that further subdivision shall not occur.
8. Lots should only be created where land capability assessment shows that effective on-site soakage of treated wastewater can be achieved. Conditions apply to siting of wastewater disposal systems in areas with poor land drainage and/ or a shallow depth to groundwater, animals are held or fertiliser is applied. Alternative wastewater treatment systems, where approved by the Department of Health, may be accepted with ongoing maintenance requirements.

9. Conditions are likely to be placed via a Department of Industry and Resources mineral tenement lease, and / or as a result of Minister for the Environment's approval after an Environmental Impact Assessment.
10. Conditions apply to the storage of fuels and chemicals, the depth of excavation related to the water table and rehabilitation criteria. Underground fuel or chemical storage tanks are prohibited via DoE by-laws in priority 1 and 2 areas within underground water pollution control areas.
11. Conditions apply to regulate fertiliser and pesticide application.
12. Can be approved if animal stocking levels (animals per hectare, guided by the Department of Agriculture's stocking rate guidelines) are consistent with the priority source protection area objectives.
13. This does not include stockyards occasionally used on farms or pastoral leases for animal husbandry.
14. Conditions may be imposed to cover design, construction of infrastructure and the types of goods.
15. May only be approved if *Home Occupation* relates to an existing residence.
16. Limited to one residential building per property.
17. Includes land or buildings dominantly used for the showing, competition or training of horses, and riding schools.
18. Includes any land, building or structure used for equine (e.g. horses, asses, mules and donkeys) housing, keeping and feeding and associated activities.
19. In accordance with Community Services (Child Care) Regulations 1988: A child care service provided to a child in a private dwelling in a family or domestic environment. No more than 5 children of pre-school age and no more than 7 children under 12 years old, including the children of the licensee or permit holder.
20. No more than 2 employees, and the home business occupies an area up to 50 square metres. Compatible if only an office/ administrative business (i.e. overnight parking of only one commercial vehicle, no refuelling or repair/ maintenance of business vehicles, and no activities involving on-site use storage or disposal of chemicals or process wastewater).
21. Employees shall be members of the household, and the home business occupies an area of up to 20 square metres. No provision for refuelling, repair or maintenance of commercial/ business vehicles or on-site use or storage of chemicals.
22. Used tyre use, storage and disposal are subject to *Used Tyre Regulations 1996*, administered by the this agency.
23. As defined in the *Model Scheme Text* (1997) or the *Residential Design Codes of Western Australia* (2002) prepared by the Western Australian Planning Commission, and covering local government planning schemes.
24. Applies to the commercial production of horticultural crops e.g. vegetables, flowers and fruit crops grown in contact with the ground. Does not apply to cereal or oil seed crops, perennials e.g. orchards, vineyards, nuts; or any crop grown separate from contact with soils in the natural environment e.g. hydroponics.
25. The use of recycled (reclaimed) water to address the diminishing level of scheme water supply in Western Australia is currently being investigated by Government. The social, environmental, health and economic issues related to this option are significant and need to be further progressed before its applicability in PDWSA is reconsidered.

\*Rural subdivision should also take account of the relevant local rural strategy adopted by the WAPC.

#### Definitions used in Table 1

**compatible** means the land use is compatible with the management objectives of the priority classification.

**conditional** means the land use can be compatible with the management objectives of the priority classification, provided appropriate site management practices are used. Conditional developments or activities should be referred to this agency for assessment and a written response.

**incompatible** means the land use is incompatible with the management objectives of the priority classification. We will normally oppose their approval by regulators. Any contentious development proposals received may be referred for formal Environmental impact assessment through the *Environmental Protection Act 1986*.

**extensive**—where limited additional inputs are required to support the desired land use, eg supplementary animal feed only during seasonal dry periods.

**intensive**—where regular additional inputs are required to support the desired land use, eg irrigation, fertilisers and non-forage animal feed dominates.

Where a land use is not mentioned, but is similar to a compatible use listed in Table 1, then applications should be submitted to the WAPC and the DoE for their advice.

The land uses listed in Table 1 should be read in conjunction with the definitions and interpretations of the listed land uses in the WAPC's *Model Scheme Text*.

Where a land use definition or interpretation in this policy is inconsistent with the *Model Scheme Text*, the definition or interpretation of the *Model Scheme Text* shall prevail. It is published in the Western Australian *Government Gazette* and is available from the State Law Publisher.

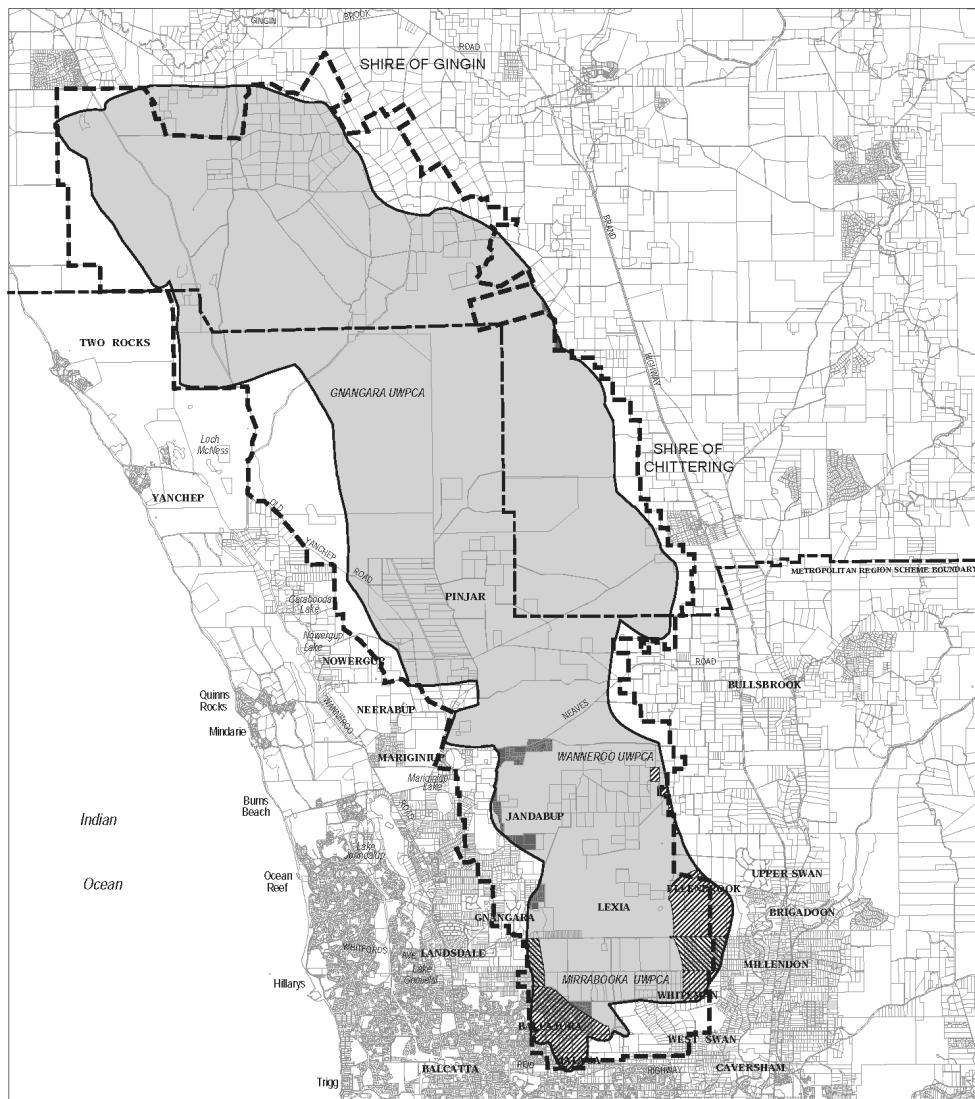
Note: Land Use Table 1 may be subject to change. As more up-to-date research on land use impacts and best management practice is undertaken, the table may be amended. More information about recommended best management practices is available in Environmental Management Guidelines and Water Quality Protection Notes for some of the listed land uses.

The most up-to-date table is available from the DOE internet site: <<http://www.drinkingwater.environment.wa.gov.au>> under Guidelines, Land Use Compatibility in public drinking water source areas, or advice can be sought from the DoE and the WAPC.

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**EXISTING AND PROPOSED UNDERGROUND WATER POLLUTION CONTROL AREA (UWPCA)  
STATEMENT OF PLANNING POLICY - GNANGARA MOUND GROUNDWATER PROTECTION AREA BOUNDARIES PLAN**

**LEGEND**

—	PROPOSED UWPCA AND SPP POLICY AREA
- - -	EXISTING UWPCA
■	PRIORITY 1 - SOURCE PROTECTION AREA
■	PRIORITY 2 - SOURCE PROTECTION AREA
■	PRIORITY 3 - SOURCE PROTECTION AREA
■	PRIORITY 2 - POSSIBLE FUTURE PRIORITY 3 SUBJECT TO ENVIRONMENTAL AND PLANNING APPROVALS

**FIGURE 1**

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Planning Information - Mapping & Spatial

