

# H.J. MACEY

ABN 45 172 403 570

LAND DEVELOPMENT CONSULTANTS  
LAND SURVEYORS  
ENGINEERS AND PLANNERS

## PRINCIPAL

R.J. Macey B Surv, LS, ARMIT(Civil Eng),  
MIS Vic, MIE Aust, CPEng

## OFFICES:

- 369 CAMBERWELL ROAD CAMBERWELL VIC 3124  
TEL: (03) 9882 4400 FAX: (03) 9882 4133  
E-MAIL: hjmacey@hjmacey.com.au
- 'EMERY VALE' MANSFIELD VIC 3722  
TEL: (03) 5777 3521

Please reply to Camberwell office and quote  
Ref: 5273

## UTILITY SERVICES REPORT

### BOX GROVE RURAL LIVING/LOW DENSITY LOBBS LANE, NAGAMBIE APRIL 2013



## CONTENTS:

### REPORT:

1. SEWERAGE FACILITY
2. POTABLE WATER SUPPLY
3. STORMWATER DRAINAGE
4. ELECTRICITY SUPPLY
5. TELECOMMUNICATIONS
6. GAS
7. CONCLUSION

### ATTACHMENTS

LAND CAPABILITY ASSESSMENT FOR ON-SITE WASTEWATER MANAGEMENT – PAUL WILLIAMS & ASSOC.  
PLANNING PERMIT APPLICATION IN OPEN POTABLE WATER SUPPLY CATCHMENT AREAS - MINISTER FOR  
WATER

## **1. SEWERAGE FACILITY**

The Goulburn Valley Region Water Corporation (GVW) is the authority responsible for the provision and ongoing maintenance of reticulated sewerage facility for area in which the proposed 'Box Grove' development is located. GVW is able to include the proposed development area within the Corporation Sewerage Service Area however external augmentation works are required to bring a reticulated sewerage system to the proposed development area.

Comprehensive consultation was undertaken with the Strategic Planning Section of the Goulburn Valley Region Water Authority in relation to the scope and extent of required augmentation works and also in relation to Authority requirements for the provision of reticulated sewerage facility for the proposed development. Options for provision of reticulated sewerage facility either by gravity or by a pressure sewer system are available. A reticulated sewerage facility is able to be constructed to service the proposed development in accordance with the requirements of the GVW and at the expense of the developer.

Following some VCAT Review matters in relation to applications for development in open, potable water supply catchment areas the Minister for Water has issued guidelines for the assessment of such applications. Copy of the guidelines is attached. The guidelines are based largely on risk management principles and a successful application for planning permit would require satisfaction of the guidelines designed to construct and maintain a stringent Domestic Wastewater Management Plan. The 'Box Grove' development area is not within a potable water supply catchment area under Division 2 of Part 4 of the Catchment and Land Protection Act 1994 however application of the above Ministerial guidelines would suggest that development in close proximity to the water boundaries abutting the 'Box Grove' proposal would require provision of a reticulated sewerage system whilst Rural Living Density development further away and removed from the abutting water boundaries would be of a much lesser risk and may be capable of supporting on-site domestic waste water treatment and management in accordance with the Code of Practice – Onsite Waste Water Management (EPA Publication 891). We attach a detailed Land Capability Assessment by Paul Williams & Associates Pty Ltd which recommends a sustainable on-site effluent disposal method for the development.

## **2. POTABLE WATER SUPPLY**

The Goulburn Valley Region Water Corporation (GVW) is the authority responsible for the provision and ongoing maintenance of reticulated drinking water supply for area in which the proposed 'Box Grove' development is located. GVW is able to include the proposed development area within the Corporation Water Supply Service Area however external augmentation works are required to bring a reticulated drinking water supply system to the proposed development area.

Comprehensive consultation was undertaken with the Strategic Planning Section of the Goulburn Valley Region Water Authority in relation to the scope and extent of required

augmentation works and also in relation to Authority requirements for the provision of a reticulated water supply for the proposed development. A reticulated drinking water supply is able to be constructed to service the proposed development in accordance with the requirements of the GVW and at the expense of the developer.

### **3. STORMWATER DRAINAGE**

Pursuant to the Water Act 1989 and other related Victorian Legislation there are four referral authorities which are responsible for parts of the general stormwater runoff from 'Box Grove'.

The Goulburn Broken Catchment Management Authority (GBCMA) is responsible for regional waterways and flood management. In this respect a flood overlay affects some of the land in 'Box Grove' and storm water design strategies for the development will require to include consideration of this overlay together with location for 1 in 100 year design rainfall event overland flow paths. The Catchment Authority has advised that recent flood modelling of the Goulburn River will be documented in a revised Flood Level Contour Atlas. We are unable to specify an issue date for the revised Flood Level Contour Atlas

Goulburn Murray Water (G-M W) operates and maintains an extensive regional drainage network providing a drainage service to irrigation customers, town, businesses and industry. G-M Water interest is in the maintenance of water health and water quality of the abutting Goulburn River and the abutting backwaters of the Goulburn Weir. Development abutting the water boundaries of the Goulburn River and the Goulburn Weir will require to comply with the setback provisions as approved by G-M Water.

The Goulburn Valley Region Water Corporation is the authority overseeing the reticulated water supply and sewerage facility services in the area and as such has an interest in the possible pollution of the above drainage systems by stormwater runoff.

Strathbogie Shire Council has the responsibility to approve of the design and to maintain the subdivisional stormwater drainage system as constructed. The Strathbogie Shire Council has adopted the Victorian Regional Councils' 'Infrastructure Design Manual' (IDM) which sets out design and construction parameters for subdivisional drainage infrastructure. Council will initially require the preparation of a Drainage Strategy Plan which will include engineering analysis of the whole of the catchment area including floodways, overland flowpaths and any requirement for stormwater detention or outfall infrastructure. Detailed subdivisional drainage for the development would then be designed to Council and other referral authority approvals. The drainage system for the subdivisional area would be broadly based on a 1 in 5 year Average Recurrence Interval with a co-efficient of runoff for Low Density development of 0.40. Council's Asset Manager has advised that the adoption of Water Sensitive Urban Design (WSUD) principles would be welcomed particularly in the use of Bioretention Swale Drains incorporating both outfall and detention capabilities for Rural Living Low Density development in lieu of construction of underground piped drainage systems.

#### 4. GAS

There is no reticulated gas distribution network in the 'Box Grove' – Nagambie area.

#### 5. TELECOMMUNICATIONS

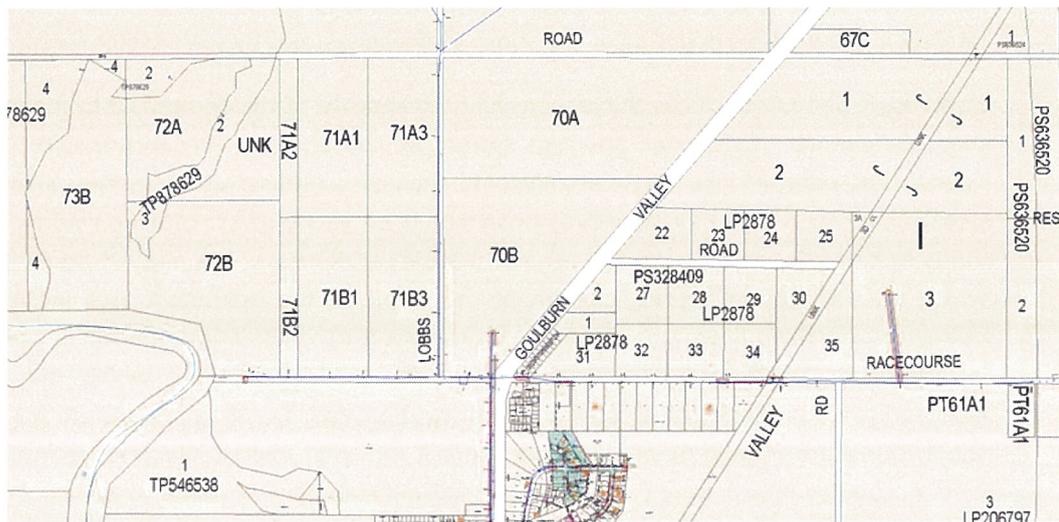
Further to a recent amendment of the Victorian Planning Provisions (VC81) the NBN Co is now the nominated telecommunications provider for the 'Box Grove' area. The NBN Co Regional Manager has advised that the NBN Broadband Rollout will be installed throughout the Nagambie district including the 'Box Grove' area however no timeline for installation is yet available.

The new standard conditions of any planning permit to issue for a new development of 100 lots or more will require that all lots are connected to current telecommunications services and that fibre ready telecommunications facilities are connected to all lots. The NBN Co Regional Manager has advised that the 'Box Grove' development would at least be required to construct a 'Pit and Pipe' reticulation system for asset appropriation by the NBN Co for installation of telecommunication facilities.

#### 6. ELECTRICITY SUPPLY

SP AusNet Pty Ltd is the nominated electricity provider for this area.

High Voltage and Low Voltage overhead power lines exist along Lobs Lane and also along the southerly unmade Government Road to the 'Box Grove' homestead as shown on the attached Power Distribution Plan of the area.



Advice from the SP AusNet Project Manager is that there is sufficient capacity in the existing network to service some of the subdivisional stages of the 'Box Grove' proposal

however any large scale development in this area may have an impact upon the existing electrical distribution network and SP AusNet would require to investigate the detailed plans of staging and lot numbers in order to ascertain any requirements for future distribution line upgrade works and any costs associated with the required upgrade works.

Reticulated electricity supply to the 'Box Grove' proposal will be via overhead or underground installation depending upon the density of individual stage development. Installation of power distribution kiosks will be required and reticulation supply will be located along subdivisional roads or within designated easements in favour of SP AusNet. Design of the electrical distribution system including Public Lighting requirements is usually undertaken by the SP AusNet Design Team in consultation with the Strathbogie Shire Council in relation to Public Lighting requirements.

## **7. CONCLUSION**

It is considered from site inspection, from perusal of the attached documents, and from consultation with and advice from referral authority officers, that necessary Utility Service Infrastructure for subdivisional development of 'Box Grove' will be able to be designed and constructed in accordance with current authority requirements and will be able to attain necessary approvals by the Responsible Municipal Authority and by other Responsible Service Authorities.

ROADY MACEY CPEng

26 APRIL 2013

# Planning permit applications in open, potable water supply catchment areas

As Minister administering the *Water Act 1989*, I issue the following Guidelines to assist water corporations and other referral and responsible authorities in their assessment of planning permit applications for use and development of land within all open, potable water supply catchments in Victoria. These Guidelines have been adopted for the purposes of s.60(1A)(g) of the *Planning and Environment Act 1987*.

**Peter Walsh MLA**

**Minister for Water**

## **Purpose of the Guidelines**

The purpose of the Guidelines is to protect the quality of potable water supplies, using a risk based approach, whilst facilitating appropriate development within these catchments.

## **Where do these guidelines apply?**

These guidelines apply to all open potable water supply catchments declared to be special water supply catchment areas under Division 2 of Part 4 of the *Catchment and Land Protection Act 1994*. Schedule 5 of the Act lists the special water supply catchment areas declared as at 1994. To find out all current declarations and which special water supply catchment areas are open potable water supply catchments and their location, contact the relevant local water corporation.

## **What is an open, potable water supply catchment?**

A potable water supply catchment provides water resources to a reservoir (or water storage) used for domestic water supply purposes. There are two types of potable water supply catchments. An 'open' catchment is where part or all of the catchment area is in private ownership and access to the catchment is unrestricted. A 'closed' catchment means that the whole of the catchment area is publicly owned and public access is prohibited.

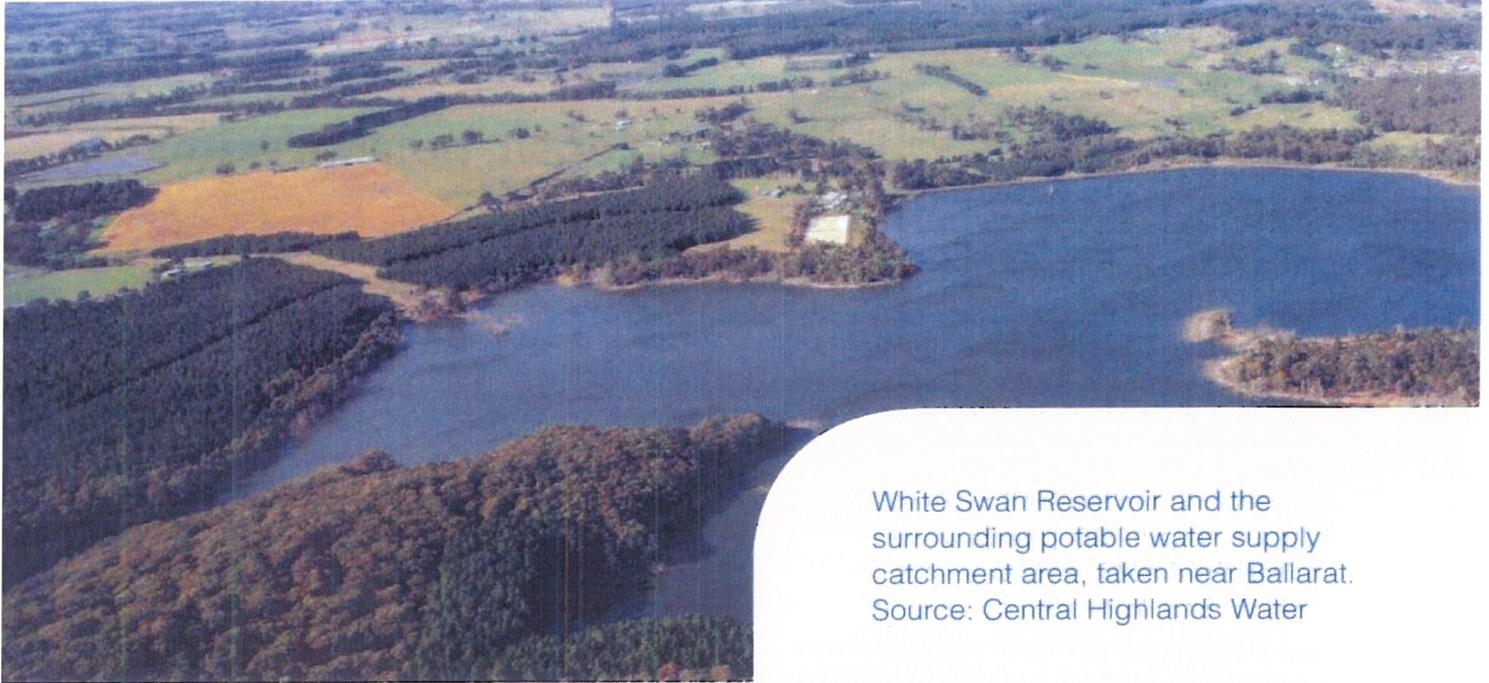
Water corporations may influence development and land use through the strategic and statutory planning process, as they do not have direct control over land in open, potable water supply catchments. However, because of the risks to public health, all use and development should be sited and managed to protect the quality of water collected from the catchment.

Most water supply catchment areas have a long history of regulation aimed to protect public health by maintaining acceptable levels of water quality flowing into, and stored in, the water storage. This has protected communities from waterborne diseases and the need for excessive chemical treatment.

All land users within catchments need to be aware of the potential effect of their activities on water quality. Residential development and agriculture particularly have the potential to impact adversely on water quality through the discharge of contaminated run-off and wastes, nutrient contributions or sediment to waterways. These key sources of pollutants present different levels of risk to catchments and are the focus of these guidelines.

---

<sup>1</sup> The catchment and/or reservoir or water storage may also be used for irrigation purposes.



White Swan Reservoir and the surrounding potable water supply catchment area, taken near Ballarat. Source: Central Highlands Water

**What State planning and environmental policy applies to open, potable water supply catchment areas?**

The importance of water quality and water catchments is specifically addressed in Clause 14.02 in the State Planning Policy Framework in all planning schemes. In this clause it is State planning policy to:

- Protect reservoirs, water mains and local storage facilities from potential contamination.
- Ensure that land use activities potentially discharging contaminated runoff or wastes to waterways are sited and managed to minimise such discharges and to protect the quality of surface water and groundwater resources, rivers, streams, wetlands, estuaries and marine environments.
- Discourage incompatible land use activities in areas subject to flooding, severe soil degradation, groundwater salinity or geotechnical hazards where the land cannot be sustainably managed to ensure minimum impact on downstream water quality or flow volumes.

Clause 19.03 of the State Planning Policy Framework adopts the strategy:

- Ensure water quality in water supply catchments is protected from possible contamination by urban, industrial and agricultural land uses.

Section 53M of the *Environment Protection Act 1970* provides that a municipal council must refuse a permit if a proposed onsite waste water/septic tank system is contrary to any State environment protection policy or waste management policy. The State Environment Protection Policy (Waters of Victoria) (**SEPP**) adopts the precautionary principle as a principle that should guide decisions about the protection and management of Victoria's surface waters when considering a permit for a septic tank system. Clause 32 of the SEPP specifies EPA's expectations in relation to on-site domestic wastewater management, and the EPA provides further guidance in relation to onsite treatment systems (EPA Publication 891, Code of Practice – Onsite Waste Water Management, as updated or replaced).

The proper application of the precautionary principle requires consideration of the cumulative risk of the adverse impact of onsite waste water/ septic tank systems on water quality, in open potable water supply catchments, resulting from increased dwelling density.

The importance of water catchments is also reflected in the special area plans prepared by Catchment Management Authorities, under Division 2 of Part 4 of the *Catchment and Land Protection Act 1994*. These plans assess the land and water resources of catchments in a region and identify objectives and strategies for improving the quality of those resources; they are also able to direct land use activities in a catchment. It is State Planning Policy (Clause 14.02-1) that planning authorities must have regard to relevant aspects of:

- any regional catchment strategies approved under the *Catchment and Land Protection Act 1994* and any associated implementation plan or strategy, including any regional river health and wetland strategies;
- any special area plans prepared under the *Heritage Rivers Act 1992* and approved under the *Catchment and Land Protection Act 1994*; and
- these Guidelines.

For information about any special area or catchment management plans that have been prepared for catchments in your region, contact the regional office of the relevant catchment management authority.

Water corporations, in consultation with other stakeholders, may also prepare a water Catchment Policy, water catchment risk assessment or similar project to address land use planning issues and the cumulative impact of onsite waste water/septic tank systems in a catchment area (Catchment Policy).

These policies can assist in:

- guiding appropriate land use and development within a catchment area, including the location of and conditions on particular land use and development: and
- Determining the areas where Domestic Wastewater Management of existing systems requires additional focus due to the existence of onsite wastewater systems.

Through strategic land use planning and with reference to special area plans and Catchment Policies, areas and causes of greatest risk can be identified and risk based management responses determined.

## The guidelines

Each of these guidelines must be addressed where a planning permit is required to use land for a dwelling or to subdivide land.

### Guideline 1: Density of dwellings

Where a planning permit is required to use land for a dwelling or to subdivide land or where a planning permit to develop land is required pursuant to a schedule to the Environmental Significance Overlay that has catchment or water quality protection as an objective:

- the density of dwellings should be no greater than one dwelling per 40 hectares (1:40 ha); and
- each lot created in the subdivision should be at least 40 hectares in area.

This does not apply where:

#### Category 1

A planning permit is not required to use land for a dwelling, to subdivide land or to develop land pursuant to a schedule to the Environmental Significance Overlay that has catchment or water quality protection as an objective.

#### Category 2

A permit is required to use land for a dwelling, to subdivide land or to develop land pursuant to a schedule to the Environmental Significance Overlay that has catchment and water quality protection as an objective but the proposed development will be connected to reticulated sewerage.

#### Category 3

A Catchment Policy has been prepared for the catchment and endorsed by the relevant water corporation following consultation with relevant local governments, government agencies and affected persons. The proposed development must be consistent with the Catchment Policy. Or,

***The water corporation will consider allowing a higher density of development than would otherwise be permitted by Guideline 1 where:***

#### Category 4

All of the following conditions are met:

- the minimum lot size area specified in the zone for subdivision is met in respect of each lot;
- the water corporation is satisfied that the relevant Council has prepared, adopted and is implementing a Domestic Wastewater Management Plan (**DWMP**) in accordance with the DWMP Requirements; and
- the proposal does not present an unacceptable risk to the catchment having regard to:
  - » the proximity and connectivity of the proposal site to a waterway or a potable water supply source (including reservoir);
  - » the existing condition of the catchment and evidence of unacceptable water quality impacts
  - » the quality of the soil;
  - » the slope of the land;
  - » the link between the proposal and the use of the land for a productive agricultural purpose;
  - » the existing lot and dwelling pattern in the vicinity of site;
  - » any site remediation and/or improvement works that form part of the application; and
  - » the intensity or size of the development or use proposed and the amount of run-off that is likely to be generated.

Note: this requires analysis in addition to a land capability assessment required pursuant to Guideline 2.

# Domestic Wastewater Management Plan Requirements

A DWMP will be considered an acceptable basis for a relaxation of Guideline 1 (as set out above) where the following requirements in relation to the DWMP are satisfied.

These requirements incorporate and build upon (but do not displace) Council responsibilities for developing DWMPs as set out in clause 32(2)(e) of the SEPP.

The DWMP must be prepared or reviewed in consultation with all relevant stakeholders including:

- other local governments with which catchment/s are shared;
- EPA; and
- local water corporation/s.

The DWMP must comprise a strategy, including timelines and priorities, to:

- prevent discharge of wastewater beyond property boundaries; and
- prevent individual and cumulative impacts on groundwater and surface water beneficial uses.

The DWMP must provide for:

- the effective monitoring of the condition and management of onsite treatment systems, including but not limited to compliance by permit holders with permit conditions and the Code;
- the results of monitoring being provided to stakeholders as agreed by the relevant stakeholders;
- enforcement action where non-compliance is identified;
- a process of review and updating (if necessary) of the DWMP every 5 years;
- independent audit by an accredited auditor (water corporation approved) of implementation of the DWMP, including of monitoring and enforcement, every 3 years;
- the results of audit being provided to stakeholders as soon as possible after the relevant assessment; and
- councils are required to demonstrate that suitable resourcing for implementation, including monitoring, enforcement, review and audit, is in place.

## Guideline 2: Effluent disposal and septic tank system maintenance

The *Environment Protection Act 1970*, the SEPP, EPA Publication 891, *Code of Practice – Onsite Waste Water Management* (as updated or replaced), and other EPA publications and Australian standards regulate and guide the accreditation, installation and management of onsite treatment systems for the collection, treatment and disposal or reuse of wastewater.

Any application for a planning permit must demonstrate that a proposed use, development or subdivision of land to which these Guidelines apply will comply with all applicable laws and guidelines, including the need to obtain a Council permit under the *Environment Protection Act 1970* for the installation of an onsite wastewater management system and associated systems.

## Guideline 3: Vegetated corridors and buffer zones along waterways

Planning and responsible authorities should encourage the retention of natural drainage corridors with vegetated buffer zones at least 30 metres wide along waterways. This will maintain the natural drainage function, minimise erosion of stream banks and verges and reduce polluted surface run-off from adjacent land uses.

## Guideline 4: Buildings and works

Buildings and works (including such things as land forming and levee bank construction) should not be permitted to be located on effluent disposal areas, to retain full soil absorption and evaporation capabilities, and should be setback at least 30 metres from waterways to minimise erosion and sediment, nutrient and salinity-related impacts.

Appropriate measures should be used to restrict sediment discharges from construction sites in accordance with *Construction Techniques for Sediment Pollution Control, Environment Protection Authority, 1991 and Environmental Guidelines for Major Construction Sites, Environment Protection Authority, 1995*.

## Guideline 5: Agricultural activities

To prevent the pollution of waterways and damage to streamside vegetation (which contributes to bed and bank stability and filters overland flows entering the stream), stock access to waterways should be minimised.

Stocking rates should take into account the capabilities of the land to sustain grazing and the potential impact of overstocking on the catchment.

Reductions in agricultural and veterinary chemicals run-off should be encouraged by improved management of rates and frequencies of application.

The inappropriate disposal of fuel and fuel containers, the disposal of dead animals, the treatment and disposal of effluent from intensive agricultural industries, and the delivery and storage of chemicals are some of the other agricultural activities which can pose a risk to water quality. Intensive animal industry is a scheduled (regulated) activity under the *Environment Protection (Scheduled Premises and Exemptions) Regulations 2007*.

If a property owner proposes to build a farm dam for commercial or irrigation purposes in an open, potable water catchment, an application for a licence must be made under Section 51 of the *Water Act 1989*. The application for a licence must be made to the relevant Rural Water Corporation.

Kind of application	Referral authority
<p>To use or develop land for a cattle feedlot.</p>	<p>Minister for Agriculture.</p> <p>If the site is located within a special water supply catchment area under the <i>Catchment and Land Protection Act 1994</i>, the relevant water corporation under the <i>Water Act 1989</i> and the Secretary to the Department administering the <i>Catchment and Land Protection Act 1994</i>.</p> <p>If the number of cattle is 5,000 or more, the Environment Protection Authority.</p>
<p>To use, subdivide or consolidate land, to construct a building or to construct or carry out works, or to demolish a buildings or works that are within a Special Water Supply Catchment Area listed in Schedule 5 of the <i>Catchment and Land Protection Act 1994</i> and which provides water to a domestic water supply.</p> <p>This does not apply to an application for a sign, fence, roadworks or unenclosed building or works ancillary to a dwelling.</p>	<p>The relevant water board or water supply Authority (referred to as "water corporation" throughout these Guidelines).</p>
<p>To use or develop land for extractive industry in Special Areas declared under s.27 of the <i>Catchment and Land Protection Act 1994</i>.</p>	<p>Secretary to the Department administering the <i>Catchment and Land Protection Act 1994</i>.</p>

Other provisions of the planning scheme may also require referrals for other reasons.



