

**Special Rural Subdivision and  
Development, Lot 219 Myall Road, Jandakot**

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**J Mazza**

**Report and recommendations of the  
Environmental Protection Authority**

**Environmental Protection Authority  
Bulletin 513  
April 1991**

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ISBN 0 7309 3429 2  
ISSN 1030 - 0120

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# **1. Background**

The site is located approximately 400m south of Forrest Road, and runs approximately 800m east from the junction of Myall and Tapper roads (see Figure 1). The area to the north and east of Lot 219 has been developed for "Special Rural" lots within the City of Cockburn's Special Rural Zone No. 4. The land is flat and a portion within the south west quadrant of the site is subject to seasonal inundation, and supports relatively dense remnant vegetation including Melaleucas around the wetter areas.

The site is over a Priority 2 Source Area as defined by the Water Authority of Western Australia (WAWA) for the protection of groundwater supplies and is also in the Jandakot Underground Water Pollution Control Area. The proposed subdivision was referred to the Environmental Protection Authority in February 1990 by the Department of Planning and Urban Development for comment. A subdivision approval for this land has been granted before by the Department of Planning and Urban Development and this application is a minor amendment to that design. Due to the potential impacts on the groundwater protection areas as mentioned above, the Authority decided that formal assessment was warranted, and the level of assessment was set at Consultative Environmental Review (CER).

At the present time a land-use study (Jandakot Land Use and Water Management Study) for the Jandakot Water Mound is being prepared for the WAWA and the Department of Planning and Urban Development, and an Environmental Protection Policy for the same area is also being prepared under the Environmental Protection Act 1986. Thus this and other developments over the water mound are being assessed by the Authority in the interim phase before the finalisation of these documents. It is hoped that once they are completed, they will give a better indication of the acceptability of specific types of development on this public water supply area.

Whilst the Authority is continuing to assess individual rural residential developments in this interim phase, it would expect them to conform with the principles regarding the siting of effluent disposal systems, vegetation retention and revegetation, control of stocking rates and others as discussed in this report.

# **2. Proposal**

The proponent, J Mazza, proposes to subdivide and develop Lot 219 on Myall Road, Jandakot to create 9 "Special Rural" lots ranging in size from 2ha to 2.17ha. The site is currently zoned "Special Rural" under the City of Cockburn's Town Planning Scheme No. 2 with corresponding special provisions designed to regulate land use (see Appendix 1). The proposed scheme provisions form part of the proposal as assessed and are extremely important in aiding the management of environmental impacts affecting the proposal. Consequently, if the proposal were to proceed, the scheme provisions should be stringently applied by the local authority.

# **3. Public submissions**

For proposals assessed at the CER level, the Authority does not usually specifically elicit comment from the wider community, but rather targets its consultation on those individuals, groups and agencies known to be directly interested or affected. In this case however, the proposal was included in a group of "expedited" assessments for which there was an additional, broader opportunity for input during two "open days" on 29 and 30 October 1990.

During this public review period, nine submissions on the proposal were received by the Authority, including six individual submissions, two government department submission and one local authority submission.

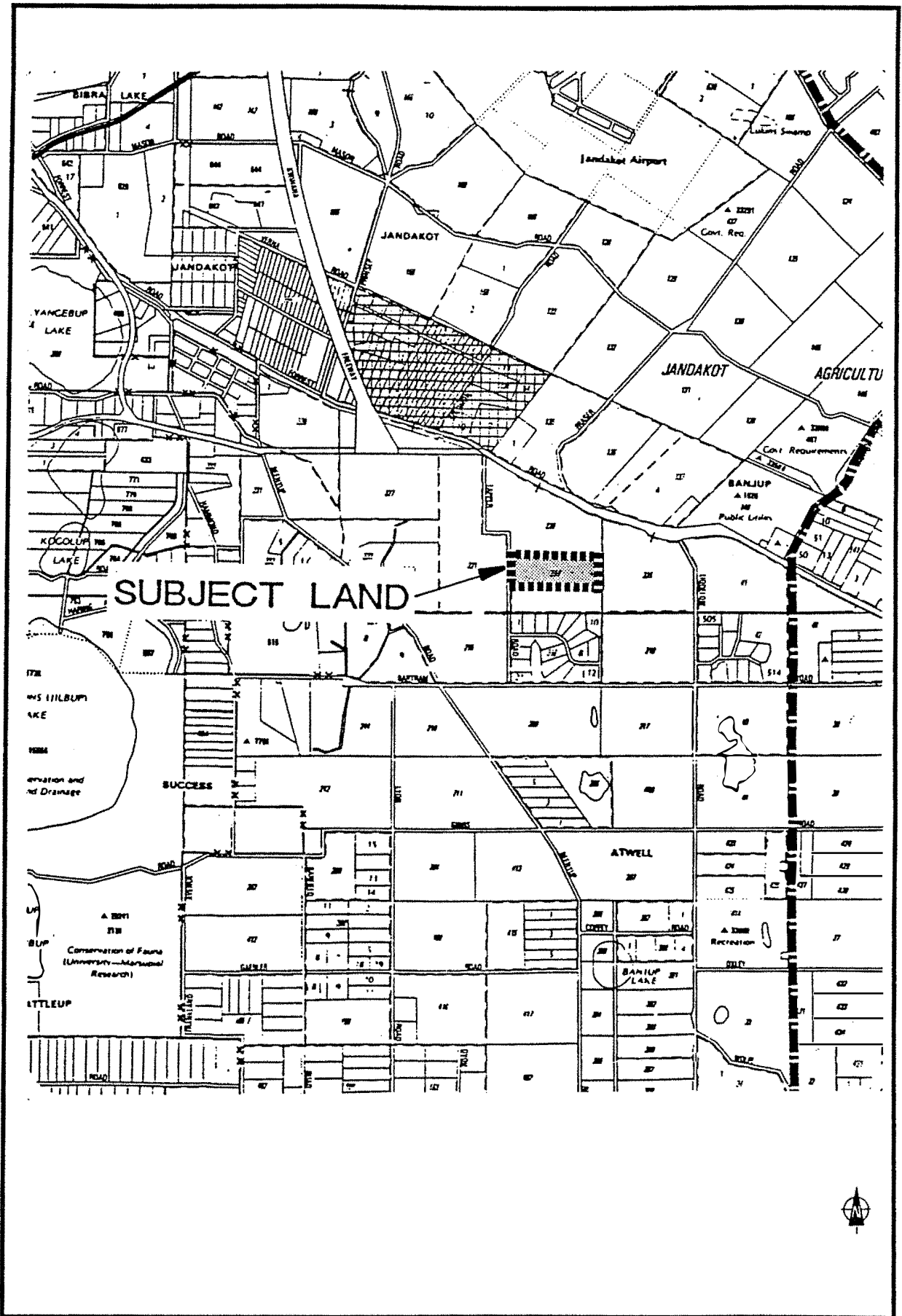


Figure 1: Location map

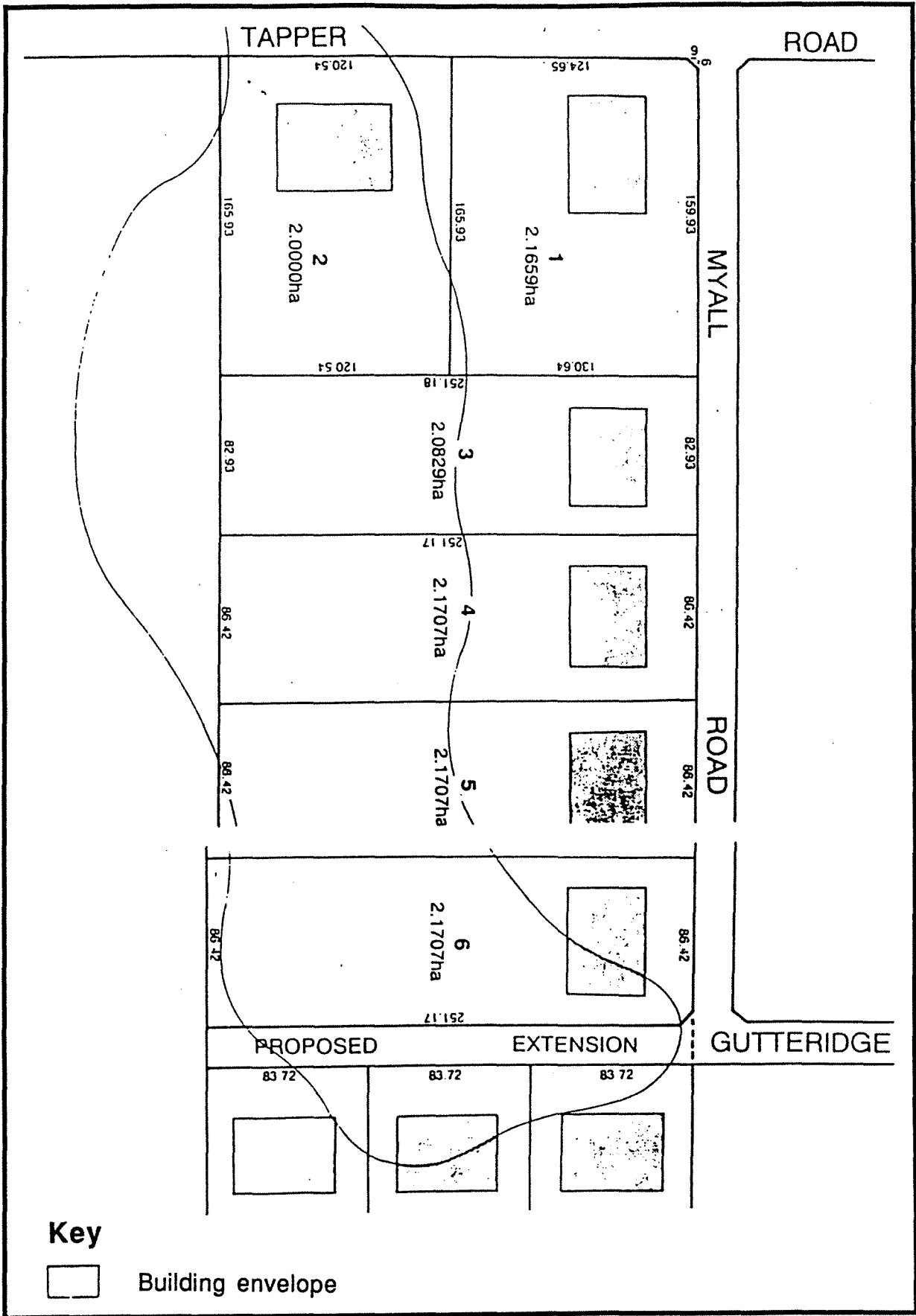


Figure 2: Subdivision design

Of the nine submissions, six were opposed to the proposal, one gave conditional support, one gave full support and one was awaiting the outcome of the environmental assessment before making a decision on the proposal.

The information in the submissions has been divided into issue groups as follows:

**Table 1 - Issues raised in submissions**

Issue	Number of submissions raising the issue
<b>Environmental issues:</b>	
Possibility of groundwater pollution (primarily from nutrients)	6
Concerns for indigenous flora	3
Climatic change	1
<b>Planning issues:</b>	
Concerns over land use planning generally	1
Development should not be allowed until development guidelines agreed on	1
Large proportion of population dependant on water supplies from the Perth area	1
<b>Other:</b>	
Public submission period too short	1
Better co-operation is needed in government	1

As can be seen from the table, the predominant issue was that of impacts of the development on groundwater quality (primarily nutrients). Clearing of native vegetation during development was also a common area of concern.

Several planning issues were also raised and whilst the Authority agrees that they may be legitimate concerns, it does not believe it is the appropriate agency to address these issues, and that alternative avenues exist through the planning process.

One submission criticised the Authority on the small amount of time available to make a submission on the proposal. However, as explained above, the proposal was included in the expedited assessment process, and this led to a level of public exposure greater than that normally associated with assessment at the CER level.

## **4. Environmental issues**

With so much of Perth's domestic water supply coming from groundwater resources (particularly during the summer months), protection of existing groundwater supplies must be of paramount importance. Thus on this site, the potentially adverse environmental impacts from the development (primarily nutrient pollution from effluent disposal systems and horses) must be managed to prevent further degradation of groundwater quality and quantity.

For this particular site, the Environmental Protection Authority believes the impacts can be managed to make the project environmentally acceptable.

In assessing the environmental impact of Special Rural developments on the Jandakot Groundwater Mound, the Authority has been nominating the developer and the relevant Local Authority as co-proponents so that environmental management provisions can be applied through the local Town Planning Scheme. However, this site was rezoned to Special Rural



some years ago, and thus the opportunity to add provisions to the Town Planning Scheme does not exist. Given the circumstances, including the fact that the subdivision has been approved previously and the project has been with the Authority since early 1990, the Authority believes that it would be unreasonable to require the initiation of another scheme amendment to include additional provisions. Thus assessment of this project has been undertaken in a different manner to other Special Rural developments on the Jandakot Mound whilst still ensuring environmental impacts are managed.

## **Recommendation 1**

**The Environmental Protection Authority has concluded that the proposed "Special Rural" development on Lot 219 Myall Road, Jandakot as modified during the process of interaction between the proponent, the Environmental Protection Authority, the public and the government agencies that were consulted is environmentally acceptable.**

**In reaching this conclusion, the Environmental Protection Authority identified the main environmental factors requiring detailed consideration as:**

- **impacts on the Jandakot Water Mound; and**
- **impacts on flora and fauna on the site.**

**The Environmental Protection Authority notes that these environmental factors have been addressed adequately by either special provisions in the City of Cockburn Town Planning Scheme or by the Environmental Protection Authority's recommendations in this report.**

**Accordingly, the Environmental Protection Authority recommends that the project could proceed subject to:**

- **special provisions in the City of Cockburn Town Planning Scheme; and**
- **the Environmental Protection Authority's recommendations in this report.**

To protect the groundwater it is important to minimise the application of nutrients to the land above. One way of doing this is to specify larger lot sizes to reduce the intensity of septic tanks and another is to restrict any horticultural pursuit to within the building envelope in line with a normal domestic garden.

## **Recommendation 2**

**The Environmental Protection Authority recommends that lot sizes must be no less than 2 hectares, and contain a building envelope no greater than 10 per cent of the total lot area to the satisfaction of the Environmental Protection Authority.**

Retention of native vegetation and revegetation has many benefits including:

- **nutrient uptake;**
- **wildlife habitat retention/creation;**
- **maintenance of groundwater levels; and**
- **aesthetics.**

Thus the Authority believes it reasonable to recommend that existing vegetation be retained and a replanting programme undertaken where necessary.

### **Recommendation 3**

**The Environmental Protection Authority recommends that with the exception of minimal clearing necessary for the building envelopes, fences, firebreaks, access and servicing, there is to be no removal of vegetation, and areas already cleared are to be revegetated with appropriate trees and perennial shrubs in accordance with a tree planting programme acceptable to the Environmental Protection Authority. The developer shall be responsible for replacing losses of plants in the first three years to the satisfaction of the Environmental Protection Authority.**

The Environmental Protection Authority believes the Local Authority should be responsible for ensuring landowners maintain areas of revegetation after the three year period to be covered by the developer has expired. Thus the Authority believes that when the Local Authority undertakes a Town Planning Scheme review for this area, a special provision regarding the maintenance of revegetation undertaken as a result of Recommendation 3 above should be included.

There are many advantages in retaining stormwater on-site (stormwater is primarily generated from road surfaces) including groundwater recharge, increased availability for plants and the retention of nutrients on-site.

### **Recommendation 4**

**The Environmental Protection Authority recommends that stormwater must be contained on-site to the satisfaction of the Environmental Protection Authority.**

The following recommendation is made to ensure adequate separation distances between the on-site effluent disposal system and the groundwater. This recommendation should be applied by the local authority during the approval of effluent disposal systems under provision 12 (see Appendix 1) in District Zoning Scheme No.1 (now Town Planning Scheme No. 2).

### **Recommendation 5**

**The Environmental Protection Authority recommends that the local authority ensure on-site effluent disposal systems be located and installed such that there is at least a 2 metre vertical separation between the base of the leach drain and the highest recorded groundwater level, and at least a 100 metre horizontal separation between the disposal system and the nearest water body.**

Provision No. 20 (see Appendix 1) in the Town Planning Scheme addresses to some extent the issue of potential land degradation resulting from the keeping of stock. The Authority believes that at the Town Planning Scheme review stage, the success or otherwise of this provision should be investigated and modifications made where necessary.

The Authority believes that any approval for the project based on this assessment should be limited to five years. Accordingly, if the proposal has not been substantially commenced within five years of the date of this report, then such approval should lapse. After that time, further consideration of the proposal should occur only following a new referral to the Authority.

The Authority's experience is that it is common for details of a proposal to alter through the detailed design and construction phase. In many cases alterations are not environmentally significant or have a positive effect on the performance of the project. The Authority believes that such non-substantial changes, and especially those which improve environmental performance and protection, should be provided for.

## Appendix 1

**Special Rural Zone Provisions Area  
south of Forrest Road  
Extract from Appendix VIII of the District  
Zoning Scheme No 1**

CITY OF COCKBURN

SPECIAL RURAL ZONE PROVISIONS  
AREA SOUTH OF FORREST ROAD  
EXTRACT FROM APPENDIX VIII OF THE DISTRICT ZONING SCHEME NO. 1

COLUMN (c) - LOCALITY

The land comprising the following lots:-

J. A. A. Lot 216 (Tapper Road)  
J. A. A. Lot 218 (Liddelow Road) } Pt. of J. A. A. Lot 219 (Tapper Road)  
J. A. A. Lot 225 (Liddelow Road) }  
J. A. A. Lot 41 (Liddelow Road)  
J. A. A. Lot 42 (Liddelow Road)  
J. A. A. Lot 220 (Tapper Road)



COLUMN (d) - PROVISIONS

The following provisions shall apply specifically to the Special Rural Zone Area referred to in column (c).

- (1) Subdivision shall be in accordance with the Subdivision Plan, Map No. 21B, and Map No. 21.B shall form part of the Scheme.
- (2) The subdivider of the land shall be responsible for providing a potable water supply equivalent to not less than 100,000 litres per annum to each lot at his own expense or in lieu thereof shall make arrangements satisfactory to the Council, which will guarantee that prospective purchasers of the lots are advised that no reticulated water supply can be provided by the Metropolitan Water Board and such purchasers will therefore be obliged to make their own arrangements to obtain a potable water supply. In addition in the absence of an underground or piped water supply, each dwelling developed after the coming into operation of this Amendment shall be connected to a main water storage tank of a capacity of not less than 90,000 litres. In this clause potable water means water in which the levels of the physical, chemical and bacteriological constituents do not exceed the maximum permissible levels set out in "International Standards for Drinking Water - Third Edition. World Health Organisation - 1971".
- (3) The minimum lot size shall be 2.00 hectares.
- (4) Zoning Table -

(1)	Advertisements	AA
(2)	Civic and Public Authority Buildings	AA
(3)	Educational Establishment	AA
(4)	Home Occupation	AA
(5)	Kindergarten - Pre-school Centre	AA
(6)	Lake Facilities	SAA
(7)	Office of a professional person where it is within a dwelling house	AA
(8)	Plant Nursery	SAA
(9)	Playing Field, Recreation Ground, Park, Botanical Garden, Golf Links	SAA

(10)	Playing field used at night	SAA
(11)	Building used in conjunction with and for the purpose of a Playing Field, Recreation Ground and Sporting Club	AA
(12)	Private Recreation	SAA
(13)	Public Utility	AA
(14)	Recreation Areas and buildings used in conjunction	SAA
(15)	Residential - Dwelling House	P
(16)	Rural Industry	SAA
(17)	Rural Pursuit	SAA
(18)	Stabling of Horses	SAA
(19)	Veterinary Clinic	AA
(20)	Veterinary Hospital	AA

(5) The symbols used in the cross reference in paragraph (4) above have the following meanings:

- P = A use that subject to Clause 19 is permitted by the Scheme.  
AA = A use that is permitted only if special consent is given by Council.  
SAA = A use that is permitted only if special consent is given by Council, and Council is advised by the Metropolitan Water Authority that a licence would be issued for the use of groundwater in the amounts necessary for the development.

(6) A use that is not mentioned in paragraph (4) above shall not be permitted.

(7) If an owner of land in a Special Rural Zone shall subdivide his land and if he or his predecessors in title shall have claimed or shall have been paid compensation by reason of the resumption by the Council of the land for a road through or adjoining the Special Rural Zone he shall before the approval of his plan of subdivision release the Council from the payment of compensation or repay to the Council the compensation paid by it to him or his predecessors in title as the case may be.

(8) Clearing of existing flora shall not take place within a distance of 50 metres from the alignment of the following roads:-

- (1) Forrest Road; and
- (2) Liddelow Road

except for the purpose of:-

- (1) Complying with the requirements of the Bush Fires Act; and
- (2) Constructing a dedicated road.

(9) A vehicular accessway shall not be constructed from a lot created in a special rural zone onto the following roads:-

- (1) Forrest Road; and
- (2) Liddelow Road.

10) Subject to paragraph (8) above the following minimum building setbacks from the boundaries of lots shall apply to all land specified in column (c).

Front setback:	20 metres
All others:	10 metres

(11) Subject to paragraph (8) above no clearing of flora shall take place in the 20 metre setback distance from any street alignment except for the construction of vehicular accessway and for the purpose of complying with the requirements of the Bush Fires Act.

(12) The disposal of liquid and solid waste shall be carried out by the installation of a sewage disposal system, as approved by the Council's Chief Health Surveyor.

(13) Where specified by Council tree planting will be carried out by the owner of land. The number of trees (existing and to be planted) shall be determined by dividing the length of the street alignment in metres (or if more than one the longest street alignment) divided by four.

(14) Roads on land within the Special Rural Zone shall be bituminised to a width of 6.1 metres with shoulders of 1.22 metres. Culverts shall be provided where considered necessary by Council.

(15) The cost of constructing unmade roads shall be borne by the subdivider. In addition to a Building License, the Council's prior approval to commence development is required for all development including a private dwelling house and such application shall be made in the form of Appendix V to this Scheme and be subject to the provisions of Part IV of the Scheme.

(16) Notwithstanding the provisions of Section 11.3(4) of the Uniform Building By-Laws, not more than one private dwelling house per lot shall be erected.

(17) The Council may, by notice served upon individual landowners or upon a subdivider of land within this zone require the preservation of specified trees or groups of trees and thereafter no landowner or subdivider shall cut, remove or otherwise destroy any tree or trees so specified unless the Council rescinds the notice of order.

(18) When considering building applications within the Special Rural Zone Council may either refuse or conditionally approve any application for any building it considers to be multi-storey.

(19) The erection of fences within the Special Rural Zone shall be in accordance with Schedule Two of the Council's Fencing By-Laws.

- (20) Wherever, in the opinion of Council, land is being grazed or stocked to cause topsoil to be exposed and/or trees to be ring-barked to the general detriment of the character and good management of the area, the matter may be referred to the Department of Agriculture for investigation and recommendation. Having regard to the recommendations of the Department, Council may order the reduction of number of, or removal of stock and/or the protection of trees by fencing or lattice binding. Failure to comply with such order shall constitute an offence under the Scheme.
- (21) Council, in considering applications to clear land for special rural use shall, in addition, have regard to the effects of clearing on erosion, water quality and other elements of the physical environment and may refer such applications to the Department of Conservation & Environment for investigation and recommendation. In granting approval to clear land, the Council shall have due regard to such recommendations.