

CITY OF ARMIDALE

ENVIRONMENTAL PROTECTION

ZONE REVIEW

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EXECUTIVE SUMMARY

- This report has been prepared in response to a brief issued by Armidale City Council to review the current boundaries and planning controls of the environmental protection zones, having regard to zone boundaries, water supply, scenic protection experience elsewhere and economic issues.
- The City lies within the valley of Dumaresq Creek and is enclosed by visually significant ridge and hilltop areas, many of which are located within the adjoining Dumaresq Shire.
- Changes to the boundaries and subdivision criteria affecting Dumaresq Shire's Environmental Protection zone in 1994 resulted in reducing minimum subdivision lot size from 40ha to 4 ha. This resulted in a different planning criteria applying to land of high scenic quality depending upon where it was located. Armidale LEP requires an average subdivision lot size of 10 ha in the Environmental Protection zone.
- The hill/ridgetop lands are located in four areas (Sectors) of the City. The existing Environmental Protection (EP) zoned lands comprise some 450 ha or 13% of the LGA. Within the zone are located 75 properties with average areas ranging from 4.26 ha (North East Sector) to 8.6 ha (South East Sector). Forty nine (49) dwellings are located in the zone.
- While water supply is available to some properties, most rely on tank water. The predominant landuses are large hobby farms and livestock grazing.
- Council's current water supply standards require a minimum fire fighting supply head of 28 metres (275 kpa) and a flow rate capacity of 11 litres per second. This standard could be achieved through the construction of additional reservoirs on higher ground (in the Shire) or through booster pumping systems. It is concluded that service provision should not be used as a criteria to determine boundaries of scenic protection land because over time, improved technologies will overcome current economic/technical constraints.
- The existing bushfire risk to property is not high.
- Little is known of flora and fauna on the hilltop and ridge lands, however due to generally poor quality/quantity of flora, the likely fauna species diversity is expected to be low.
- Armidale citizens value the natural ridgelines surrounding Armidale and would welcome initiatives which would result in the protection and re-afforestation of these lands.

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- Council rating policy does not provide rate relief for owners of EP land. Council has the power to introduce a differential rating system which would result in a re-adjustment of rates across the City, based upon landuse and/or zoning.
- The use of Environmental Protection zoning is widespread in NSW. A variety of different mechanisms are used to protect lands of scenic value, including development trade-offs, land acquisition and bonus subdivision rights.
- To date, there have been no recorded legal challenges seeking compensation for lack of development rights for land zoned Environmental Protection - Scenic.
- A visual assessment study of the four hill/ridge sectors (NW, NE, SE, SW) was undertaken using a similar approach to that undertaken by Dumaresq Shire for the South Western lands. The tasks involved included site investigations, analysis of scenic values, liaison with land holders, and the preparation of plans showing lands of relative scenic value.
- The visual assessment identified lands considered to be of "prime scenic protection value" and "support scenic protection value".
- Various planning options were examined including tree planting schemes, land acquisition, land subdivision and rating.
- The preferred management option involves:
 1. Retention of the EP zone and 10 ha provisions on lands identified as "Prime Scenic Protection" with owners given rate relief through a differential rating structure. The area is estimated at 85 ha with an additional 15 ha at UNE.
 2. The removal of the EP zone on the balance of the existing lands and the introduction of two new zones. Residential (Scenic Protection) and Subdivision Investigation (Scenic Protection). Subdivision of these lands would be permissible subject to land capability assessment and the preparation of a Development Control Plan (DCP) for each Sector. Minimum lot sizes would be based upon slope and visual impact and proposed ameliorative measures. Minimum subdivision size would be 2,000 m² on flat land, rising to 1ha on steeper land. Service provision would be consistent with Council's current standards ie. water, sewerage, bitumen roads, etc.
 3. Incorporation of the proposed management strategies within the forthcoming LEP review for the City and adjoining Shire lands.

RECOMMENDATIONS

The Study makes the following recommendations:

1. The existing boundaries of the Environmental Protection zone should be amended so as to more accurately reflect there perceived purpose of maintaining the natural visual ridgetop curtilage to the City.
2. Existing zoning restrictions should be maintained within the revised Environmental Protection zone and the owners partly compensated by some form of local rating relief.
3. Those lands identified as being of "support scenic" quality be appropriately zoned and development controls be formulated so as to ensure the scenic quality of these lands is enhanced over time through allowing forms of urban development which provide for extensive landscape opportunities.
4. The Study be publicly exhibited and all property owners affected by the proposed zoning changes be invited to comment on the preferred management option.
5. The findings of the Study together with public comment, be included within the planning process leading to the formulation of any future LEP for the City and adjoining Dumaresq Shire lands.

1.0 INTRODUCTION

Manidis Roberts in association with *Hill Top Planners* were commissioned to undertake a review of the environmental protection zone provisions as they applied within the Armidale City Council Local Government Area. These areas are zoned 7 Environmental Protection, pursuant to Armidale Local Environmental Plan 1988. The adjoining Dumaresq Shire Council have recently completed a review of environmental zones located south of the City Local Government boundary. This review resulted in boundary alterations and reduced minimum subdivision size in the Shire's 7(a) Environmental Protection (Scenic) zone.

The City of Armidale lies within the valley of Dumaresq Creek and is enclosed on the north and south sides by hills and ridges, rising up from the valley floor. These hills and ridges form a backdrop to the City and significantly contribute to creating an attractive visual setting for Armidale. However, many of these hills and ridges lie within the Shire and thus, City planning policy aimed to protect these lands from unsympathetic visual intrusion is constrained.

The aim of this study is to investigate the appropriateness of the existing planning controls of the hills and ridges within the Armidale City LGA, document the reasons why certain lands require protection from future development, and devise a strategy to ensure the visual significance of these lands is either retained or enhanced over time, without undue burden on either Council or the affected landowners.

The report is presented in nine Sections. Sections 1, 2 and 3 introduce the study, provides a background to the study, current zoning controls and development constraint issues. Community perceptions, owner concerns, land rating options available to Council, and environmental zoning practise elsewhere in NSW is discussed in Sections 4, 5 and 6. Each of the four identified hillslope/ridgeline sectors are assessed for visual significance in Section 7 using a similar method to the neighbouring Shire study. Management strategies and recommendations appear as Sections 8 and 9.

1.1 Background ¹

1.1.1 History of Environmental Protection Zone

Since the mid 1970's the protection of the distinctive ridgelines surrounding the City from closer development has been part of Council's planning strategies and statutory planning controls.

The importance of these hilltop areas in defining the City's natural setting was acknowledged in the landscape component of the 1990 Armidale Heritage Study, and confirmed in the recently-completed draft Armidale-Dumaresq Planning Strategy (UNE 1995).

Typically these lands extend between the 1,000 m contour up to an elevation of almost 1,100 m and occupy lands on both the northern and southern sides of the City. They are currently zoned "Environmental Protection 7" under Armidale Local Environmental Plan 1988, within which subdivision to an average lot size of only 10 hectares is permitted. This has effectively frozen opportunity for further subdivision, although Council will allow a single dwelling on each existing allotment, subject to controls in respect of siting and building materials in its "Development Control Plan 1991".

The aim of these controls is to preserve the predominantly "natural" backdrop to Armidale when viewed from the urban areas in the valley of Dumaresq Creek, with an absence of evidence of human settlement such as building into the skyline, reflective roofing, exotic plantings, roads and power lines. This policy also has ecological benefits through

¹ This section of the report courtesy of Armidale City Council.

maintenance of predominantly indigenous planting regime in the affected areas, in contrast to significant exotic plantings which are a distinctive feature of the built-up area of Armidale.

A mutually-supportive justification for the present limitation is the inherent difficulty of providing reticulated water to hilltop lands, given the elevation of Council's supply reservoirs. Booster pumping systems would be required to enable reticulated systems to provide adequate domestic pressure and capacity for fire fighting purposes. Such systems must be designed to ensure "fail safe operation", and would represent a significant development cost.

At present Council will allow tank water systems in this zone subject to adequate drought and fire protection provisions, but in the event that closer subdivision were to occur a potential conflict with the need for an adequate water supply for domestic purposes and any related land use activities on semi-rural lots can be foreseen. Council requires a minimum fire-fighting supply head of 28 metres in water supply reticulation (275 kPa) at 11 litres/sec for any residential subdivision.

Likewise, while the use of septic tanks is currently permitted with houses on large lot hilltop lands, closer subdivision may result in the need for reticulated sewerage given the Department of Health's guidelines for Domestic Wastewater Disposal (October 1992), which suggests the need for reticulated sewerage where a subdivision occurred within 2 kilometres of an existing reticulated system. In Armidale's case, this would encompass all the land within the Environmental Protection zone.

1.1.2 Recent Developments

Since the introduction of planning controls for hilltop lands in the City, there have only been two cases where zoning amendments have been granted (in 1985 and 1988) on the basis of perceived community benefit arising from developments. Other small lot subdivision within the current zone pre-dates Council control of the lands concerned.

Following landowner submissions, neighbouring Dumaresq Shire commissioned a visual assessment of its own Environmental Protection (Scenic) zones to the west and south of the City in 1992. That study was carried out by EDAW Consultants and completed in 1993. It recommended, inter alia, a revision of existing hilltop protection zoning boundaries, and within the areas so zoned, subdivision to a minimum of 4 hectares (previously 40 ha), subject to a development control plan to address issues of revegetation, landscaping, earthwork activity (eg. road, dam construction) and appropriate (eg. non-reflective, "landscape" coloured) building materials.

An LEP amendment giving effect to these changes was gazetted on 23rd December 1994. A DCP is now in place which addresses the abovementioned issues (DCP No. 3 adopted 15th February 1994).

1.1.3 Need for Action on City Ridgetop Lands

Within the City, as urban development activity on the periphery of the existing built up area increases, the planning controls affecting these hilltop lands are likely to come under increasing scrutiny, especially following the recent study of the Shire and its recommendations. The Draft Armidale-Dumaresq Planning Strategy (UNE, 1995) concluded that while protection of the ridgetop areas should be sustained, current zoning controls may be "a fairly crude tool for achieving the desired objective of a natural or pastoral surround and framework to the urban areas".

There have been enquiries to Council from a limited number of landowners of the hilltop land about the potential for further development. Concerns have also been expressed about rates liability and the perception that development is restricted to benefit the wider community

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without appropriate "subsidy" from the community. All these issues require more detailed investigation.

At the same time, the opening of the Armidale by-pass on the western side of the City (in January 1995) creates a new corridor for viewing the hilltop areas around the City.

Council has indicated "that it is not necessarily" committed to changing the existing planning controls and a conclusion "that the status quo should be maintained would not be considered an unacceptable outcome of the study"². Council has an open mind on the issue provided the abovementioned concerns are addressed in any review of current policy.

Outcomes from the study will provide an essential input to the new City-wide LEP to be prepared following the finalisation of the Armidale-Dumaresq Planning Strategy.

1.2 Study Approach

The study was undertaken in accordance with the tasks required in the consultants brief (Appendix 1). The issues of servicing, land constraints, rating and community benefit were researched using existing information obtained from Council and through discussions with service providers and agencies. The examination of practices elsewhere was undertaken through discussions with both Department of Planning and officers from other councils. While the review is not exhaustive, it provides examples of practices in four Local Government Areas (LGA's). An examination of decisions of the Land and Environment Court since its inception was undertaken to identify if the environmental zoning/compensation issue had been judicially considered.

The approach taken in respect to the review of zoning boundaries followed a similar process to that of the EDAW study on adjoining Shire lands. While it was initially intended that a less comprehensive assessment could have sufficed, the nature and complexity of landform, the location of the LGA boundary, and the forthcoming joint Councils' LEP project convinced the study team to undertake a comprehensive visual assessment. This resulted in the preparation of a plan for each of the four sectors identifying a landscape management strategy.

The EDAW study provided a management strategy which sought to satisfy the Shire Council's goal of ensuring the hills and ridges are revegetated and strengthen the natural landscape backdrop to the City and the City's entrances. The study team concluded that the basis of the EDAW strategy was sound, however the mechanism to achieve the objectives requires strong development control implementation.

Three options were investigated and documented, and a preferred option presented in a report circulated to a consultative committee consisting of landowners, interest groups and Council Staff. Following input from the Committee, the report was finalised and presented to Council.

² Council Brief for the Study.

2.0 EXISTING SITUATION

Due to the Local Government boundary being located in the visual curtilage of Armidale, the planning policies of both the Shire and the City impact upon each other. Currently they are not consistent. A long term planning strategy for the expansion of Armidale extending into the Shire has been completed and highlights the need for a common planning approach for the visually significant lands.

2.1 Armidale LEP 1988 - Environmental Protection Zone

The development of the City of Armidale is controlled through the provisions of Armidale LEP 1988. The general aims of this plan are:

- (a) to encourage the proper management, development and conservation of natural and man-made resources within the City of Armidale by protecting or conserving:-
 - (i) the City;
 - (ii) areas of high scenic value; and
 - (iii) places and buildings of heritage significance to the City; and
- (b) to replace the existing planning controls by a single local environmental plan to help facilitate growth and development of the City in a manner which is consistent with the objectives specified in paragraph (a) and which:
 - (i) minimises the cost to the community of fragmented and isolated development of urban land;
 - (ii) facilitates the efficient and effective delivery of services and facilities; and
 - (iii) facilitates a range of residential opportunities in accordance with demand.

In order to achieve (a) (ii), certain land which was considered to have high scenic value was zoned 7 Environmental Protection. This zone incorporates an area of approximately 455 ha, or 13% of the Armidale LGA. The provisions of the Environmental Protection zone are as follows:

1. Objectives of zone

The objectives of this zone are-

- (a) to retain attractive rural landscapes and areas for landscape protection in accordance with the strategy plan which reflects the existing character of the City;
- (b) to ensure the retention of the rural landscape by restricting future subdivision of land to an average allotment size of 10 hectares, based on existing legal allotments as at the appointed date;
- (c) to allow only development that maintains the rural setting of the City in relation to -
 - (i) the natural vegetation and drainage;
 - (ii) siting, height and bulk of building; and
 - (iii) external colour and texture of building; and
- (d) to allow only development which does not require the upgrading of existing utility services other than connection to a single dwelling-house.

2. Without development consent

Agriculture, other than ancillary dwellings, structures or intensive livestock keeping, forestry, other than ancillary dwellings.

3. Only with development consent

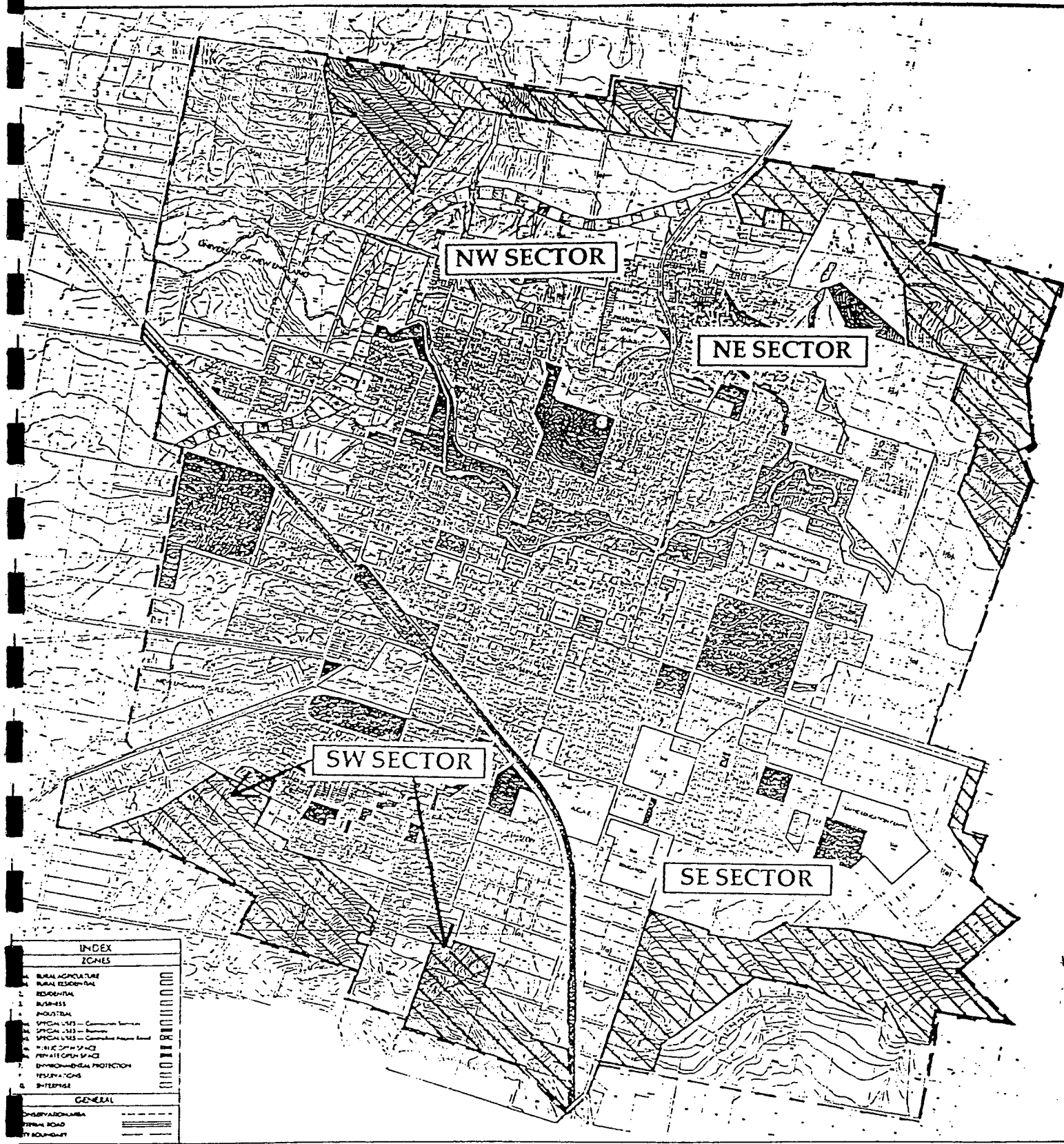
Any purpose which, in the opinion of the Council, is consistent with the objectives of this zone.

4. Prohibited

Any purpose other than a purpose referred to in Item 2 or 3.

Subdivision of land is permitted, provided allotments created have an average size of not less than 10 hectares. Dwellings are permitted on each separate land holding.

The lands zoned Environmental Protection are located on the outskirts of the City boundaries and are categorised into four geographical sections - NW, NE, SE and SW (Figure 1). An inventory of each of those sections was undertaken, and results detailed below:



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW


- City Boundary
-  Environmental Protection Zone

Figure 1
Armidale LEP 1988

City of Armidale - Environmental Protection Zone Review

North West Sector

| | |
|-----------------------|--|
| Total Area: | 66.3 hectares |
| No. Landholdings: | Nine (9) |
| Average Holding Area: | 7.4 ha |
| No. Dwellings: | Four (4) |
| Services: | All properties accessed by gravel roads. Water supply available to three (3) properties. Sewerage not readily available. |
| Elevation: | 1008 to 1077 m AHD |

Comment: This land is viewed from the Armidale By-pass, particularly when travelling north. While the existing zoning does include elevated lands, the boundaries do not follow any particular contour. Many of the holdings traverse into Dumaresq Shire.

North East Sector

| | |
|-----------------------|--|
| Total Area: | 145 ha |
| No. Landholdings: | 34 |
| Average Holding Area: | 4.26 ha |
| No. Dwellings: | 30 |
| Services: | Only a small number of properties have access to a town water supply. All sewerage disposal is on-site. Access to most properties is by gravel road. |
| Elevation: | 1020 to 1057 m AHD |

Comment: The land comprises hill slopes and ridges. Both scattered eucalyptus species and denser eucalyptus communities provide an attractive visual landscape. Existing dwellings lie below the tree canopy and generally are not visible when viewed from the valley floor. 1(b) zoned lands lying below the EP zoned lands exhibit similar landscape characteristics. The steeper slope of most of these lands provide fewer opportunities for these lands to be utilised for standard residential development.

The boundary of the EP zone does not follow a specific contour landscape unit or landscape feature. One amendment to the zone boundary was approved by Council in 1992. This provided for the transfer of EP zoning to protect an existing stand of trees, while development for 59 residential lots (800 m² to 1,100 m²) have been approved on cleared land, formally zoned EP.

South East

| | |
|-----------------------|--|
| Total Area: | 129.8 ha |
| No. Landholdings: | 15 |
| Average Holding Area: | 8.6 ha |
| No. Dwellings: | 8 |
| Services: | Water and sewerage services are available to properties adjoining the existing development area of the industrial estate. Access is generally via bitumen roads. |
| Elevation: | 1,006 to 1,030 m AHD |

Comment: The land is not as elevated as the other three EP Sectors and appears to have been established in order to provide a green buffer around the industrial estate. The tree cover, while providing a pleasant visual landscape is not dense, comprising scattered eucalyptus species. The EP zone does not fully surround the industrial uses with the landfill depot being visible from Long Swamp Road and the adjoining Dumaresq Shire (Roseneath Road). Council is planning to close this facility by the year 2000 and landscape the site. Environmental Protection land parcels located either side of Castledoyle Road contain scattered eucalyptus species, but lie below the elevated ridgelines located in Dumaresq Shire.

City of Armidale - Environmental Protection Zone Review

South West Sector

| | |
|-----------------------|---|
| Total Area: | 113.5 |
| No. Landholdings: | 17 |
| Average Holding Area: | 6.7 ha |
| No. Dwellings: | 7 |
| Services: | Water and sewerage services are available to those lands which immediately adjoin existing residential areas. Gravel and bitumen road access. Land east of St. Patrick's Estate is not easily accessed due to topography. |
| Elevation: | 1,032 to 1,100 m AHD |

Comment: The eastern lands are cleared and are steeply sloping. The other lands contain scattered eucalyptus species on both gently sloping and steeper sloping lands. These lands immediately adjoin residentially zoned land and Dumaresq Shire's Environmental Protection zone which encompasses more elevated lands to the south. The zoning boundary does not follow any particular contour.

2.2 Dumaresq Environmental Protection Zones

Dumaresq Local Environmental Plan No 1 provides for the protection of visually sensitive lands through Zone No. 7(a) Environmental Protection (Scenic) Zone. The location of this zone is shown on Figure 2. The objectives of the zone are to conserve and enhance the ecological, visual, recreational and management values of the hills and ridges, whilst allowing carefully controlled rural subdivision to occur" (Clause 9).

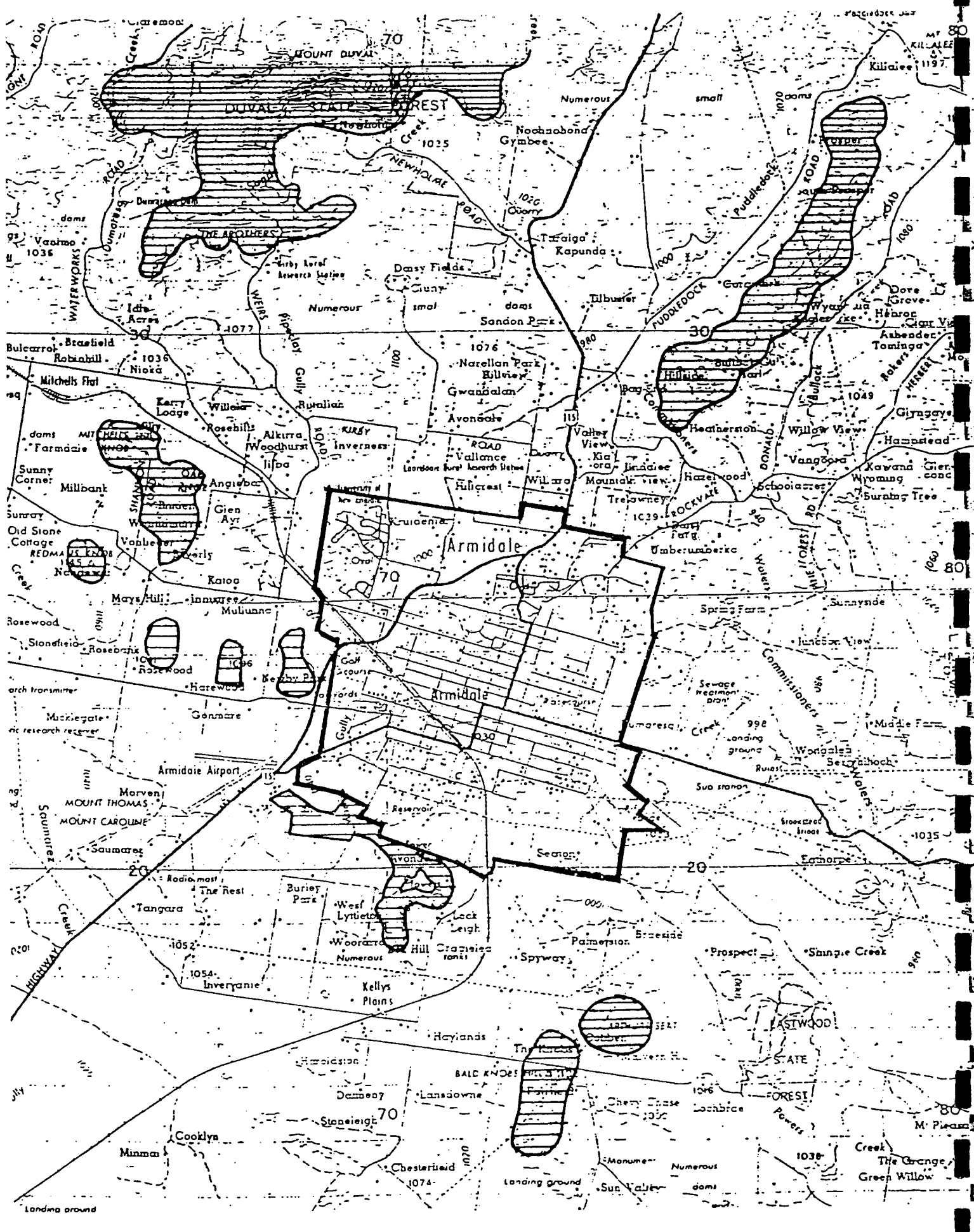
Subdivision of lands zoned 7(a) EP is permitted as follows:

- Those EP lands lying to the south and west of Armidale reviewed by EDAW - 4 hectare minimum lot size;
- All other EP lands - 40 hectares minimum lot size.

Dumaresq Council's DCP No. 3 Development in the Environmental Protection Scenic Zone (15th December 1994), provides a range of guidelines aimed to ensure the impact of development within the EP zone creates minimal visual impact. Subdivision applications must be accompanied by a report addressing the following issues:

- An analysis of the existing vegetation, detailing type, location and condition. Such report is to detail any requirements for preservation and enhancement of vegetation (particularly native trees) during subdivision and building;
- A soil analysis of the site, using appropriate techniques, such as test holes. Such analysis should particularly relate to soil stability and requirements in respect of subdivision, building, planting and road and driveway construction.

The DCP requires new buildings (including dwellings) to be located below the skyline and constructed of low reflective materials and located so as to preserve existing trees. A landscape plan is to accompany the application with reference to be given to foreground and background planting of indigenous trees and shrubs so as to screen buildings when viewed from other land.



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW


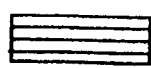
-  City Boundary
-  Environmental Protection Zone

Figure 2
Dumaresq LEP No 1

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Council requires all rural residential subdivision, including small lot (ie. 4 ha) subdivision in the 7(a) EP zone to be connected to a domestic water supply. In order for those EP lands lying immediately south of Armidale to be subdivided, an additional reservoir will be required. This would need to be located at a higher elevation than the existing reservoirs.

Armidale City Council expressed concern in respect to the LEP/DCP controls in the EP zone as addressed by the EDAW Study. These concerns are:

- Pending review of related controls of Armidale, introduction of a 4 ha lot size (v's 10 ha average on nearby lands in Armidale) is undesirable and premature;
- Proposals for revegetation in rural areas intended for rural residential development with limitations on water supply must address bushfire protection/fire fighting capacity;
- Need to specify strict landscaping requirements and appropriate qualifications for landscape designers undertaking such work;
- Performance guarantees for new landscaping are important given water supply limitations and prevailing climate;
- Rezoning of the land is heavily predicated on smaller lot subdivision and associated residential development effectively "guaranteeing" revegetation and tree planting in the zone;
- Any individual property betterment of environmentally-sensitive lands should be balanced with equivalent protection of community interests.

2.3 Armidale and Dumaresq Planning Strategy 1995

The Armidale and Dumaresq Planning Strategy was a study commissioned by both Councils in order to provide a strategy for the future growth of Armidale and the City's surrounding hinterland. It is intended that the strategy will provide the basis upon which a review of the planning instruments of both Councils will be reviewed. The Strategy outcomes include a range of planning initiatives, including recommendations of relevance to this study. These being:

- *Recommendation 3B - Future Rural Residential Development*
 5. Large lot residential development and rural smallholding development on the periphery of the City be provided with full urban services, (with the possible exception of reticulated sewer) and be directed into targeted growth areas.
 6. Large lot residential development and rural smallholding development be seen as an active management tool for both maintaining the current visual setting of the City and providing protection to its main entrances.
- *Recommendation 3L - Significant Landscape Resources*
 2. The present emphasis on retaining the current pattern of cleared and forested ridge lines surrounding Armidale be retained, but that detailed studies be carried out on ways that this can be done, while accommodating appropriate development, in accordance with detailed development control plans, prepared in consultation with affected landowners.
 4. Management of tracts of Creeklands, drainage corridors, wildlife corridors and ridgelands in existing and proposed urban areas be vested in community groups where possible, and that innovative, low-cost management strategies, consistent with the environmental values of these areas, be encouraged.

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The Strategy made the following conclusions in respect to the ridges surrounding the City:

The present emphasis in retaining the current pattern of mixed forested and grazed lands on the ridges surrounding Armidale should be retained but the existing environmental protection zoning is considered a relatively unsophisticated tool for protection of these areas. It is suggested that detailed development control plans could be used instead for this purpose.³

The strategy did not identify any EP land within the City boundaries as being required to be developed to meet the estimated demand for either rural or rural residential subdivision. However, EP zoned land in the Shire, immediately adjoining the City to the south and west was included as being potentially suitable to accommodate the estimated demand for rural residential development.

³ Armidale and Dumaresq Planning Strategy 1995, Page 9

3.0 SERVICING and CONSTRAINTS

Land use strategies, and thus zoning, should be based upon a combination of the environmental capability of the land, the ability of the land to be provided with services, and the desires of local residents. In this study, visual assessment is a major environmental consideration however the provision of water & sewerage services, access, bushfire risk, soil erosion, and flora and fauna retention are also important in determining an appropriate planning strategy for the subject lands.

3.1 Water Supply

With the exception of a few isolated locations, the majority of lands zoned EP are not serviced via a town water supply. Augmentation of the existing system is considered to be technically possible, however the cost may be prohibitive in certain circumstances. In order to provide a sufficient head of water by gravity, the siting of reservoirs on ridges is common practice.

Council's policy on water supply in new subdivisions is set out in the Armidale City Council Draft Engineering Code, which requires all water services to be designed in accordance with the NSW Public Works Investigation Manual. Developers are required to submit hydraulic designs which satisfy these standards, Council's standard requires a minimum fire fighting supply head of 28 metres (275 kPa) in all cases, and a flow rate capacity in the main of 11 litres per second in residential subdivisions.

The application of Council's standard upon EP land has the following implications to development of the land:

- Without booster pumping of water - maximum effective development height of 30 metres below reservoir;
- With booster pumping - technically no limit, however installation, running and maintenance costs increase proportionally with increased level of water pressure required.

Armidale Council is the water supply authority for both the City and adjoining Dumaresq Shire. While all three water supply dams are located within the Shire, all reservoirs which service the City, are located within the City boundaries. While higher locations exist in the Shire, which would provide head and thus reduce the requirement for booster pumps, the approval of the Shire would be required for the land to be acquired and the facilities constructed.

It is concluded that there appears to be no technical limitation on the supply of water to all lands zoned EP, however the cost to comply with Council's standard is likely to be cost prohibitive where booster pumping is required.

As there are many variables to meeting Council's Standard it is considered inappropriate to establish a zoning boundary based upon the current water supply practise. While the cost of servicing a development may be prohibitive at this point in time, changes in standards and technologies could change this in the future. Consequently, the determination of the EP boundary needs to be related to those factors by which the citizens of Armidale value ie. visual landscape quality. Thus, the landscape strategy needs to be based on a retention and enhancement of landscape quality. Potential development of these elevated lands will be limited by the cost of providing services, including water, sewerage, roads and other utilities, but these considerations should be made within the context of Council's overall development strategy for the City and competing market forces.

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3.2 Sewerage

There currently exists areas of zoned undeveloped residential land in Armidale which are not well serviced by sewerage services. Major augmentation works are required to assist in the development of these lands. The EP lands are elevated and do not pose a significant technical problem for sewerage services to be supplied. The NSW Department of Health guidelines for waste disposal (4th August 1992) require all subdivisions involving lot sizes of less than 1 ha and provided with reticulated water to be seweraged. Subdivisions within 2 km of a reticulated sewerage system are also required to be connected to the system. This would include all EP land. Proposals which do not meet these requirements are unlikely to be approved, unless a comprehensive geotechnical report is prepared and it can be clearly established that the proposed effluent disposal system is adequate to meet long term environmental impact. It is unlikely that approval would be obtained for large scale subdivision proposals.

3.3 Access

There currently exists a reasonable network of access roads servicing the EP lands. Any proposal to construct additional roads on the hillslopes or ridges should be designed along the contour gradient. The visual impact of the road should be access at the design stage. The existing fragmentation of EP lands provides limited opportunity for the development of additional access links. If development of these and other adjoining lands are to be considered, then development control plans identifying the road network or consideration of appropriate design criteria in DA's would be required.

3.4 Bushfire Risks

Due to the scattered nature of the vegetation, bushfire risk is considered to be within the low to moderate range. While there has been isolated instances of bushfire in the EP zone, these are generally the consequence of poor site management, accident or vandalism⁴. While the combination of slope, weather pattern and fuel supply present a risk, the existing pattern of close settlement in the EP zone provide's a reasonable level of security. Access to a secure water supply in those areas eg. town water or farm dam, greatly assists in containing bushfire. In areas of higher bushfire risk (north east and south west sectors) safe evacuation routes need to be available in times of emergency. The majority of properties have an alternative means of exit in such circumstances. Additional development in areas of moderate bushfire risk which have been properly planned are known to result in increased response times, reduce fuel build-up and improved access for fire fighting vehicles.

3.5 Soil Erosion

An examination of lands in the EP zone found few areas affected by soil erosion. Most areas had a good coverage of vegetation and appeared not to be overgrazed. However, a combination of steep slope, vegetation removal and high rainfall will result in increased levels of soil erosion. This is evident in Cooks Road, Stoney Ridge Road and Apple Hill Tree Drive. Farm management practice which permits forest regeneration and maintains low stocking rates are considered appropriate for hillslope and ridgetop lands at Armidale.

3.6 Flora and Fauna

With the exception of the North East Sector, the quality of flora and fauna known to exist in the EP lands is considered by local observers to most likely to be low however no studies have been undertaken⁵. Regeneration of native vegetation in the North East Sector has resulted in a noticeable increase in fauna species. To date no known studies have been carried out to determine the nature, type or abundance of species on these lands.

⁴ Personal communication R. Norton Bushfire Officer Dumaresq Shire 19/4/95

⁵ Personal communication D. Curtis, Greening Australia 4/4/1995.

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4.0 COMMUNITY BENEFIT

It is now common practice when developing landuse strategies for landowners and local citizens to be involved in the process. Most often residents provide insights into the project which are often not identified by the planner. Both landowner and resident views were invited. Both cost to the landowner, and benefit to Armidale citizens of retaining EP zoning is discussed below.

4.1 Community Perceptions

The importance to citizens in protecting the natural ridgelines surrounding Armidale and re-forestation of these, was presented as one of the principle objectives of the Armidale and Dumaresq Planning Strategy. While this view was reinforced at a meeting of owners of EP land in the City⁶, several related issues emerged. These being:

- Eucalypt regeneration should be encouraged on the ridges and skyline. Maintain existing old bushland. Probably some areas should not be developed. Existing trees are more valuable than new plantings - provide existing benefit visually and as habitat.
- Promotion of flora and fauna corridors within residential areas.
- A policy on ownership should be developed. A view was expressed that prime EP land should be owned by Council to ensure long-term protection.
- Rates should be reduced to make money available for individual property owners to manage their land (eg. bushfire management, mistle-toe eradication). Current rate levels mean that there is pressure on landowners to use their land to generate income.
- Development should be more sensitive to the area. Rather than minimum lot sizes, specific constraints and criteria should be used to determine what can happen. Any guidelines should be based on a long-term vision. There should be more flexibility on what can occur within the zoning. The timing of when controls apply should also be considered ie. at development or building application stage.
- While smaller lot sizes, and therefore more buildings, may lead to more tree planting and the retention of the visual significance of these areas, smaller lot sizes and more buildings also threaten fauna and flora.
- The value of the land is a reflection of the zoning and what is permitted within it. However, there is a speculative element incorporated into the value of the land because there is an expectation that the zoning will "become less restrictive" as urban development extends towards these areas.
- Armidale has a regional identity much of which is attributed to the exotic trees in the built-up areas and eucalypts on the periphery.
- Development in the north east sector should be restricted to avoid the loss of the suburban identity that has occurred with more recent developments eg. colourbond fences along main thoroughfares.
- The lifestyle in these ridgeland areas is desirable. By permitting subdivision the opportunity to enjoy this lifestyle is made available to more residents and also provides a greater choice of housing.
- A sustainable environment is possible - smaller lot sizes can result in greater tree cover and regeneration provided they are subject to aesthetic and servicing controls.

⁶ Council is currently undertaking a review of its rating structure. The results of this review were not available at the time of writing.

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A report on the community consultation meeting is provided as Appendix 2.

If the City's existing vegetated skyline is to be maintained, then mechanisms need to be found to ensure detrimental impacts do not occur. But should this visual benefit enjoyed by all citizens be borne by a minority of landowners for all the community. Identification, zoning and acquisition of the EP lands by Council is one mechanism albeit rather expensive. Alternatives are to control development through zoning restrictions and development control which do not result in detrimental visual impact or through a scheme which permits the transfer of development rights.

The existing controls provide few opportunities for subdivision or additional dwellings to be erected. Thus these landowners, by being unable to further develop their land, are providing a public benefit at some cost to themselves. This is a vexed issue and one which many Councils have been presented with when administering LEP's which contain Environmental Protection zones.

Similar issues have been raised in respect to the provisions of State Environmental Planning Policy No. 14 - Wetlands, which significantly restricts the owners opportunity to subdivide, fill or drain land, so as to improve its value. Often these restrictions are more perceived than real.

4.2 Benefits v's Cost

It is not considered possible to quantify in monetary terms the value of retaining a particular visual image. While real estate values may be utilised to compare the monetary difference between elevated and non-elevated land, a wide variety of other factors result in this assessment being meaningless. In Armidale's case these factors include:

- Adjoining rural land being zoned for either residential or rural residential purposes;
- The availability of services;
- Comparisons in the size and locations of the land parcels;
- Perceived development potential;
- Market forces;
- Certain land zoned 1(b) having similar physical attributes as EP land.

Council's current universal rating policy provides no "relief" to owners of EP land and thus any real or perceived community benefit generated by restricting the use of EP land is not "returned" to the landowners.

While many EP landowners are of the opinion that they are penalised through larger minimum subdivision lot sizes (10 ha vs 2 ha or less) the actual "penalty" has not been quantified. Given Council's servicing requirements, particularly water (275 kPa of pressure), opportunities to subdivide EP land with the exception of the south east sector, are severely limited unless new reservoirs are constructed. For other rural zonings in the City (1(a) & 1(b)), the provision of sewerage and reticulated would normally be required with consequent cost implications.

An examination of each landholding was carried out to determine the impact a change minimum subdivision size would have on the ability of individual landowners to subdivide.

Table 1: Size of Land Holdings in Environmental Protection Zone - Armidale LEP 1988

| Size of Holdings | SW Sector | SE Sector | NE Sector | NW Sector | Total |
|------------------|-----------|-----------|-----------|-----------|-----------|
| 0 - 2 ha | 5 | 1 | 16 | 0 | 22 |
| 2 - 4 ha | 3 | 5 | 2 | 1 | 11 |
| 4 - 8 ha | 3 | 13 | 9 | 4 | 19 |
| 8 - 10 ha | 1 | 4 | 4 | 2 | 11 |
| > 10 ha | 5 | 2 | 3 | 2 | 12 |
| Total | 17 | 15 | 34 | 9 | 75 |

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If similar subdivision provisions were to apply to the EP zone as in Dumaresq Shire ie. 4 ha minimum, only one third of properties could be subdivided (ie. holdings over 8 ha). The potential increase in the number of allotments has been assessed at approximately 40. The impact of an additional 40 dwellings in the EP zone, if appropriately sited would likely to result in minimal visual impact.

However, if a lesser minimum subdivision size was considered, the resultant number of allotments would increase as follows:

- 2 ha minimum - 140 lots
- 1 ha minimum - 300 lots

The consequential visual impact upon the EP zone if either of these two options was adopted is likely to be significant, in certain areas, while in some areas the impact is likely to be minimal. Appropriate development controls, tree retention and revegetation could actually result in a positive visual impact in some locations over time.

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5.0 RATING

Some landowners have expressed concern to Council at the high cost of land rates relative to limited landuse potential of EP land. Avenues available to Council are outlined.

5.1 Existing Rating Policy

Armidale City Council applies one land rate to all properties in the LGA, based upon land values provided by the NSW Valuer General, dated July 1992. Dumaresq Shire Council do likewise. However, Dumaresq Council applies a lower rate in the dollar which results in Shire property owners paying significantly less rates than their City neighbours.

5.2 Alternative Rating Options

The Local Government Act 1993 provides Councils with the power to raise income in four ways. These being:

- Ordinary Rates (Section 492)
- Special Rates (Section 492) eg. drainage
- Charges (Section 501) eg. garbage services
- Fees (Section 608) eg. DA & BA fee

Section 493 of the Act states that there are four (4) categories of the ordinary rate:

- *farmland*
- *residential*
- *mining*
- *business*

These categories may, at Council's discretion, be divided into *sub-categories* in accordance with Section 529 of the Act.

Before making the ordinary rate, Council must have declared each parcel of rateable land in its area to be within one or other of the four categories (Section 514) or a sub-category of a main category and given written notice of its decision to the landowner (Section 531).

The Act provides a degree of flexibility in the setting of rates. Council have a discretion of structuring a rate in one of three ways (example of two properties with land values of \$5,000 & \$35,000):

1. An ad valorem amount (say 1.7cents/\$), ie. based upon land value alone
eg. (1) $\$5,000 \times 1.7c$ in the dollar = \$85
(2) $\$35,000 \times 1.7c$ in the dollar = \$595; or
2. An ad valorem amount subject to a minimum rate on all land (say Minimum of \$300)
eg. (1) $\$5,000 \times 1.7c$ in the dollar = \$85 - Minimum of \$300 would apply;
(2) $\$35,000 \times 1.7$ cents in the dollar = \$595; or
3. A base amount (say \$250), plus an ad valorem amount (say 1.0 cents/\$) .
eg. (1) $\$250 + \$5,000 \times 1.0$ cents = $\$250 + \$50 = \$300$
(2) $\$250 + \$35,000 \times 1.0$ cents = $\$250 + \$350 = \$600$

Council may also adopt a different ad valorem amount for each of the four categories of the ordinary rate. Thus, Council may apply a base amount applicable to all land holdings, and then a different ad valorem amount for each land category or sub-category.

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It is within Council's legal power to determine a rate for a parcel of land which is different from an adjoining land parcel, based upon zoning or other distinguishing feature of the land. Thus, Armidale Council may categorise land zoned Environmental Protection as "Residential - Environmental Protection", while adjoining land zoned 1(b) Rural Residential may be categorised as "Residential - Rural". While each land parcel could be levied with the same "base amount", a different ad valorem amount could apply between the different land zonings. In this manner, a variation in the amount of rates paid between the two land zonings could be achieved. However, as Council would be anxious not to reduce its total rate "take" a reduction in one area would result in a corresponding increase in another area of the City.⁷

⁷ EDAW 1993, P. 11, 12

6.0 ENVIRONMENTAL PROTECTION ZONING

The use of restrictive zoning to control development on environmentally sensitive land is common practise in NSW. However, approaches vary throughout the State and lack of formal legal argument or judicial opinion on the issue of compensation provides limited direction for progressive change.

6.1 Current Practise in NSW

The use of landuse zoning as a means of both identifying lands considered environmentally sensitive to development and controlling inappropriate land management practice is in common usage throughout NSW. The NSW Government has sought to protect both coastal wetlands and coastal rainforests through State Environmental Planning Policies (SEPP No 14 Wetlands, SEPP No 26 Littoral Rainforests). Development of these lands is severely restricted. Owners of such lands are not compensated for any economic loss associated with such planning restrictions.

Local Government have been encouraged by various State Government planning bodies and their citizens to introduce environmental protection zonings as a means of protecting land from inappropriate activities. The range of such zoning is extensive and includes the following land types:

- Coastal
- Scenic
- Green buffers around offensive land uses i.e. industrial areas, landfill sites
- Archaeological sites
- Flora reserve
- Water catchment
- Scenic site
- Wetlands
- Aboriginal site

While many of the above reservations have been determined following definitive scientific investigations, the boundaries of the first three of the above are defined using subjective criteria. Consequently, such zonings are often the subject of considerable debate and legal challenge.

In undertaking this study, LEP's and DCP's of several LGA's were examined for their similarities with Armidale. Four of these were considered to provide assistance in understanding practise in other areas and relevance to reviewing the mechanisms currently used in Armidale to restrict development of the hills and ridgetops.

6.1.1 Lismore

Lismore LEP 1992 provides protection of several areas of environmentally sensitive lands via means of a environment protection zone. These zonings are confined to remnant rainforest areas and not utilised as a mechanism to protect the hills and ridgetops which surround the City. Lismore' physical setting is similar to Armidale, in as much as most urban development is located in a valley surrounded by treed hills and ridgetops. However, urban expansion has occurred in an easterly direction (Goonellabah) along a large elevated ridge. These lands are visually prominent and as a result of development, the skyline has undergone progressive visual change.

In order to address the issue of visual impact created by development of hillslopes in Goonellabah, Council adopted DCP No 22. The provisions of this plan provide for the protection of key tree clusters which are known to contain habitat for Koala. Where removal of trees are proposed and approved by Council, as part of a development consent for subdivision, the DCP provides for the applicant to plant up to 50 trees per each tree

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removed. The ratio of tree replacement varies depending upon the significance of the tree to be removed.

The other relevant feature of DCP No 22 relates to lot size/slope ratios. Land with slope in excess of 20% (1 in 5) must be in excess of 2,200 m² and provide adequate area for garaging and manoeuvring two cars. The DCP does not provide a mechanism for the acquisition of Koala habitat areas, except via S.94 acquisition or dedication cost off-sets.

6.1.2 Blue Mountains

Landuse protection of environmentally sensitive lands in the Blue Mountains is provided via a variety of zoning provisions contained within Blue Mountains LEP 1991. The planning instrument provides seven conservation zones aimed at providing various degrees of environmental protection to land considered to have important environmental qualities. These being:

- Rural Conservation - retention of existing rural landscape, no subdivision, no ribbon development.
- Bushland Conservation - retain bushland areas held in private ownership, encourage landscaping and regeneration, ensure appropriate building design, protect buffer zone between towns and minimise visual impact of development on the landscape, particularly when viewed from the Blue Mountains National Park. Subdivision is restricted - minimum lot size of 5,000 m² applies in some designated areas.
- Residential Bushland Conservation - provides for residential development within a bushland setting, buildings to harmonise with bushland character of area, and regeneration of bushland is encouraged. Subdivision is restricted. DCP controls apply in areas where subdivision is permitted.
- Environmental Protection - aimed at protecting environmentally sensitive land and areas of high scenic value from development. Subdivision of land only permitted for a "public purpose". Applies to both private and public land.
- Environmental Protection Acquisition - considered appropriate for acquisition. Acquisition arranged in request of land owner.
- National Park - this zone includes all land contained within the boundaries of the Blue Mountains National Park.
- Regional Open Space - applies to both private and publicly owned lands sought to be acquired for environmental protection and passive recreation purposes.

The LEP provides restrictive development criteria which includes building setback, building design, bushfire protection, soil erosion protection, flora/fauna impacts, building heights, heritage assessment, provision of utility services and tree preservation. In order to ensure sufficient site area is available for bushland protection or regeneration, building area limitations apply to each lot.

An extract of the LEP is provided as Appendix 3.

6.1.3 Gosford

Gosford's planning strategy was developed by the NSW Planning and Environment Commission in the 1970's. The strategy provides for the retention of steeped and forested hillslopes and ridges through the provisions of IDO No. 122 (Gazetted 30th March 1979). Those lands considered of high conservation value (scenic or wildlife) are zoned 7(a) Conservation. Lands generally lying below 7(a) lands have been zoned either 7(b) Scenic

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Protection, 7(c2) Scenic Protection - Rural Small Holdings or 7(c6) Scenic Protection - Residential.

The minimum subdivision controls apply:

- 7(a) - 40 hectares
- 7(b) - 20 hectares
- 7(c2) - 2 hectares
- 7(c6) - no minimum stated

However, the IDO provides a variety of subdivision "bonuses" where 7(a) land is either dedicated to Council, or monetary contributions paid to acquire 7(a) land. An extract of IDO No. 122, (Clause 18) which details this system is provided as Appendix 4. This approach provides the landowner with the opportunity to increase the number of subdivided allotments while at the same time securing for the public lands identified as having conservation status, at no cost to the ratepayer. However Council becomes responsible for the maintenance cost of the land.

The IDO provides general controls in respect to the siting and visual impact of dwellings proposed to be erected within a rural conservation zone, as well as tree preservation provisions. Within the 7(a) zone, dwellings are permitted on an existing allotment, however they shall not be erected "within 50 metres of any ridgeline or prominent visible brow" (Clause 30 & (1)).

Gosford City Council has administered the scheme known as the Coastal Open Space System (COS) since 1979. During this time over 70% of the total COS area of 3,045 ha has been acquired. There have been no appeals to the Land and Environment Court, even though Council requires \$30,000 per lot COS contribution where conservation land is not being dedicated.

Council has sought to consolidate its Planning Instrument, however while the Department of Planning were in favour of the retention of Clause 18 in a new LEP, the NSW Parliamentary Counsel would not accept the clause, claiming transfer of development rights through monetary contributions should be addressed via way of Section 94 of the EPA Act 1979 and not via an LEP. Gosford Council has elected to retain the existing instrument for the time being. A review of the scheme is currently being undertaken.

6.1.4 Wollongong

City of Wollongong LEP 1990 designated land considered to be of high scenic quality as environmental protection. These lands are generally located on a major backdrop to the City. As a means of securing these lands for public purposes, Council provides landowners with subdivision bonuses under DCP No. 46 - *Fair Trading on the Illawarra Escarpment*.

The DCP identifies land as either Escarpment Core Area or Escarpment Fringe Area. The latter category is further divided into "high conservation value" and "less conservation significance". Council has adopted a policy called "Fair Trading" whereby a landowner may wish to negotiate additional development entitlements in exchange for the transfer of Escarpment Core Area land. Fair trading only applies to the transfer of land which is designated "Escarpment Core" on the DCP map and only if suitable sites for additional development entitlements are available within the "Escarpment Fringe - less conservation significant area".

The DCP does not specify the ratio of additional development entitlement preferring to negotiate these on an individual site basis. The following factors influence the size and number of allotments:

- How much land is being dedicated for public purposes;

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- Whether the land has the capacity to accommodate increased development;
- Whether the landowner is willing to undertake environmental improvements such as tree planting and land stabilisation; and
- The outcome of detailed land capability studies.

The DCP was adopted by Council in September 1994, and it is too early to determine its success. A copy of DCP No. 46 is provided as **Appendix 5**.

6.2 Legal Issues

The use of environmental protection zoning to limit development of land for the benefit of the larger community, although common practise in NSW, has yet to be tested in the courts. Unlike land zoned for open space or reserved for a public purpose, eg. road, drainage, etc. which is subject to acquisition provisions contained within LEPs, a local authority has no legal requirement to acquire land zoned "environmental protection" unless specifically provided for within an LEP.

As the Courts have yet to provide a definitive opinion on a Council's legal liability in respect to potential exposure to claims arising from owners of lands zoned environmental protection, it is considered appropriate for Council to obtain independent advice.

The basis of any action to be brought in the Court would be pursuant to the Land Acquisition (Just Terms Compensation) Act, 1991 which provides for owner initiated acquisition procedures where a public authority has identified land for a public purpose.

7.0 VISUAL ASSESSMENT

The primary land assessment issue in this study is to definitively define what lands are "visually significant" ie. what lands are most important to the City and should be protected by planning controls? This section examines each area of ridgetop/hillslope land surrounding the City and concludes that lands fall into two categories, these categories relating to the level of visual significance - prime scenic protection lands and support scenic protection lands. Management strategies are developed in response to these findings.

7.1 Methodology

An examination of the existing environmental protection zones indicated that the boundaries were not based any documented visual analysis. Thus in undertaking this review, the visual assessment was extended to include those undeveloped hillslope lands which adjoined the EP lands.

The methodology utilised to assess this visual significance of Armidale's hillslopes and ridges comprises the following:

- An assessment of landscape value;
- An assessment of the contextual landscape;
- Visual Analysis - identification of areas of common visual character and the sensitivity of areas to accommodate visual intrusion;
- Landscape Management Strategy - determining a set of measures to ensure those areas of high visual sensitivity /scenic value, are protected and enhanced.

The EDAW Study provided a useful basis of visual assessment for the south west sector and the approach taken in assessing visual impact/visual sensitivity is consistent with visual assessment practise. Given that the EDAW Study and this study will form the basis of determining landuse strategy for the hillslopes and ridgeland around Armidale, it is considered appropriate for a similar assessment approach to be undertaken for reasons of consistency.

7.2 Landscape Value

Placing an economic value on the natural landscape is a futile exercise. Any objective definition of landscape quality must be related to the mode of experience, as well as the cultural background, knowledge and mood of the observer. Even if one considers only the pleasure of a casual visitor, the density of incident needed to give variety and richness to a landscape is quite different for a bushwalker and a motorist.

There are however some general principles which have gained wide support. Aesthetic pleasure is derived from a perceived balance between order and disorder. An excessively ordered landscape - whether natural or man-made - soon loses its interest. An excessively disordered one leads to weariness and confusion. Thus, variety or contrast, and harmony, are considered to be essential components of a valued visual experience.

Human landscape preferences tend to choose the interface between two systems - the meeting of land and water, and of land and sky. Country landscapes in Australia often comprise large landscape units without much local variation. Thus, were significant local variation is present, the landscape value is considered to be high. This is the case in Armidale where the hillslopes and ridges contain large landscape variation.

This diversity of landscape quality needs to be assessed, based upon three principles, these being:

- No element of landscape can properly be considered in isolation - any loss of variety could represent a loss to the whole system;
- The tension between the natural landscape and the human landscape should be maintained - certain lands should always remain unconquered.
- There should be no loss of scenic quality along the skyline when viewed from major vantage points ie. Highway, By-pass, CBD, Drummond Park, March Street, Dumaresq Creek, open space reserves, The Arboretum, etc.

7.3 Visual Analysis

7.3.1 Contextual Landscape

The City of Armidale is enclosed within a valley surrounded by hills, which are located within Dumaresq Shire. While these hills have been cleared for agricultural purposes, the remaining vegetation provides an attractive natural backdrop to the City. Those hills which are viewed from various locations in the City are illustrated on Figure 3. The vegetation pattern of each elevated sector of the City was mapped from aerial photography.

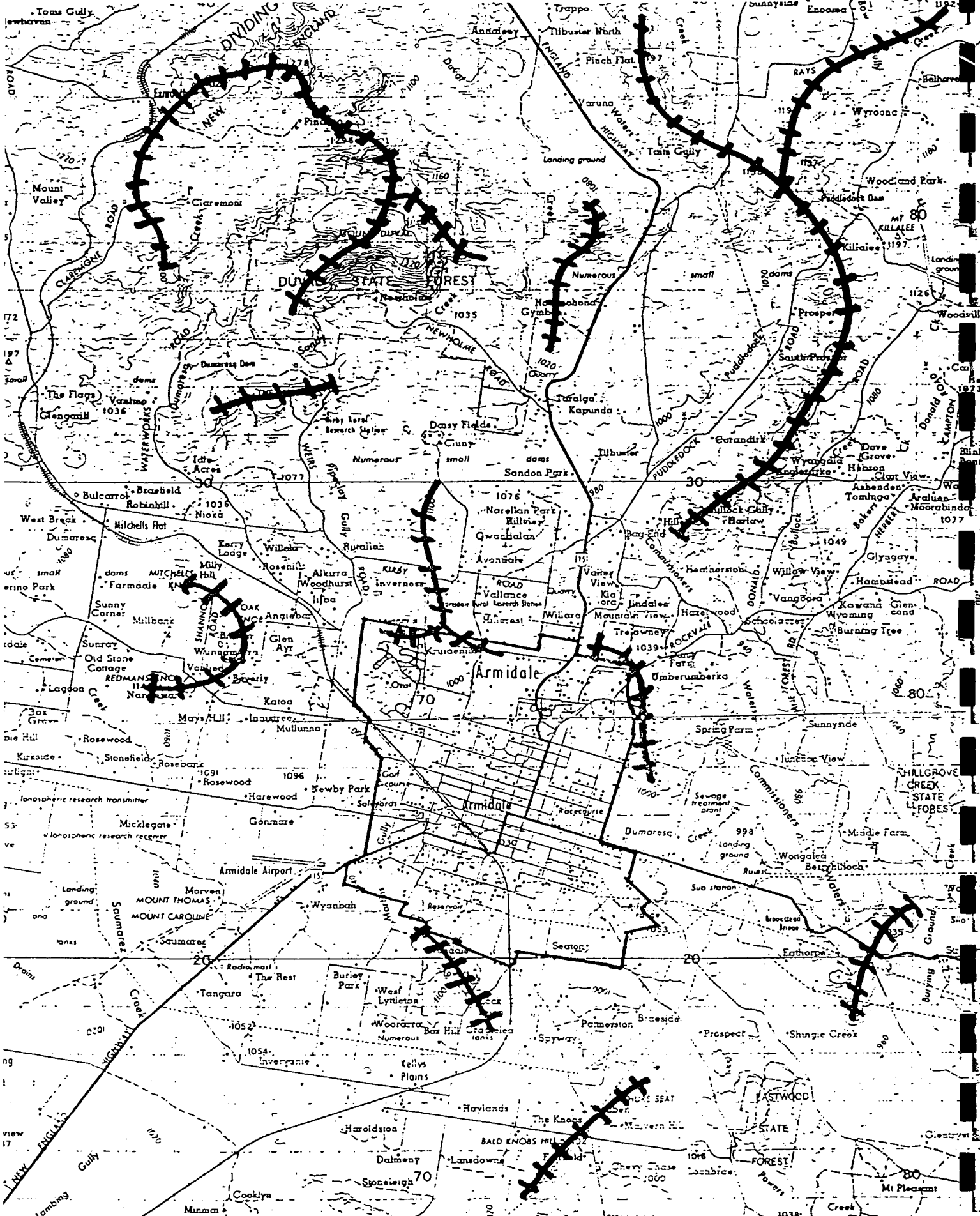
These hillslopes and ridges within Armidale form part of the lower slopes of the surrounding elevated terrain and these combine to form a pleasant rural landscape upon which is nestled the urban fabric of the City.

When viewed from the lower areas of the City, the City's hillslopes predominate the skyline and provide an attractively visual medium between developed lands and the sky. As one rises in elevation, the visual experience changes with more distant hills (Mount Duval, Bald Knobs Hill, Arthur's Seat, Donald Range) coming into view.

Looking onto the City from the surrounding ridgelines, it is evident that the City's urban fabric has moulded itself into the landscape with residential subdivision extending over hillslopes up to 1,070 metres AHD. The impact of this development on the steeper landforms has in most part been softened by extensive plantings of both exotic and native species. Some elevated lands have been set aside for parkland eg. Drummond Park, Arboretum while the vegetated spine running beside Dumaresq Creek provides additional landscape variety. One observation is that Armidale has a large number of institutions which administer large parcels of land (eg. UNE, TAS, NEGS, PLC) and past tree planting schemes have resulted in these sites making a positive contribution to the urban landscape.

The Environmental Protection zones and adjoining elevated lands have been subdivided into four sectors, being:

- North West Sector - comprising those lands lying north of the Armidale By-pass.
- North East Sector - comprising those lands lying to the north east of the existing residential development.
- South East Sector - comprising those lands generally surrounding the Industrial Estate.
- South West Sector - comprising hillslopes east and west of *St Patricks Estate*.



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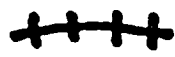

-  Hills/Ridges
-  LGA Boundary

Figure 3
Contextural Landscape

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In assessing the landscape characteristics of each sector, a series of maps were prepared for each:

- Vegetation
- Landscape Units
- Landscape Sensitivity
- Visual Management Units

Each of these sectors were separately examined and assessed against recognised criteria.

7.3.2 Landscape Units

Landscape units define those areas with similar visual character or quality. The assessment is based upon the natural features of vegetation and topography and influenced by landuse patterns. Landscape units have been broadly divided into four topographic groups:

- Hills and Ridges;
- Upper Slopes and Spines;
- Lower Slopes;
- Valley Floors

Each of these groups contain up to three vegetation sub-groups:

- Grouped Trees;
- Scattered Trees;
- Cleared

The combination of these groups, when mapped, provided landscape units. These units form the basis upon which the landscapes visual sensitivity and scenic landscape management policies can be based.

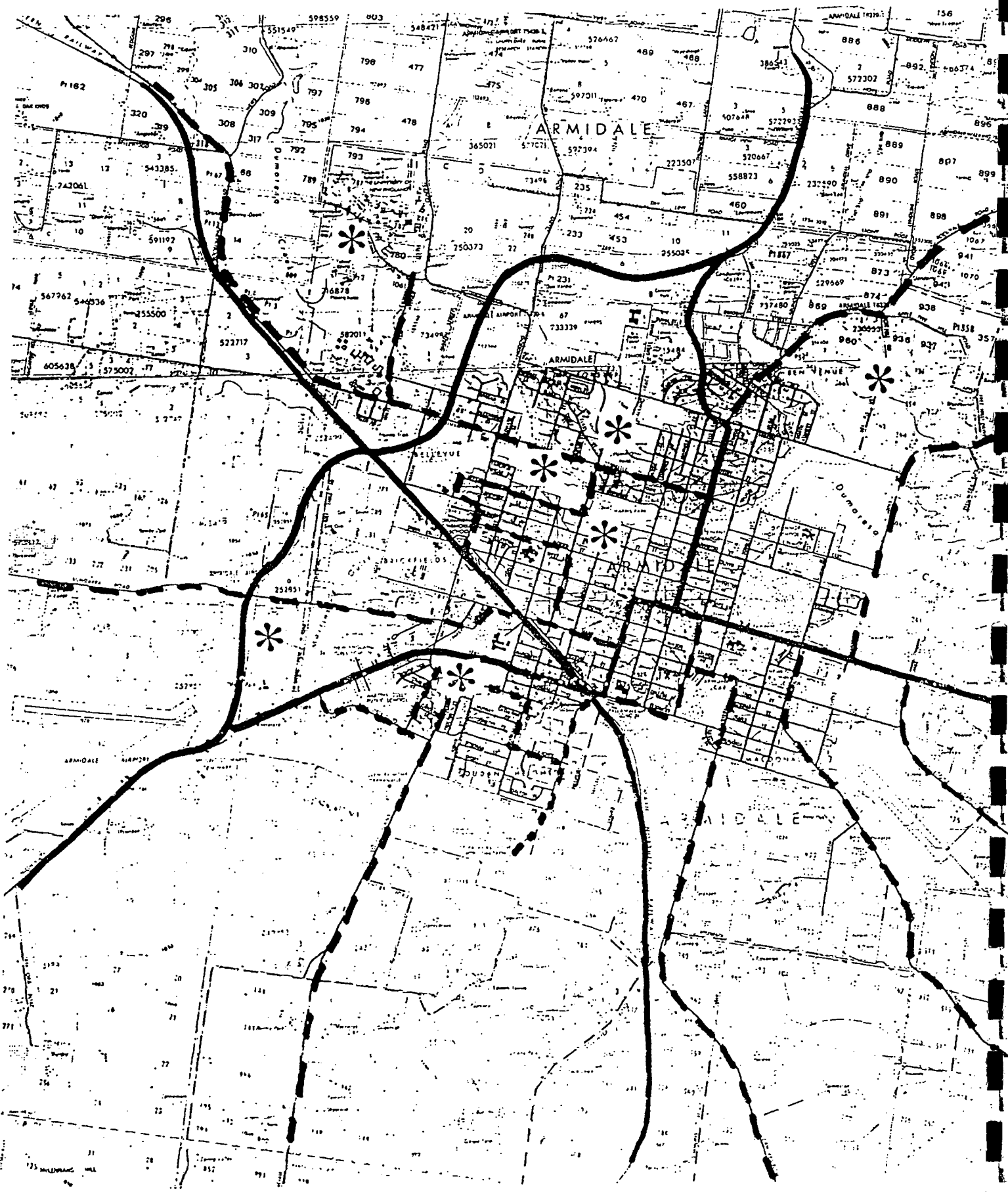
7.3.3 Visual Sensitivity

In order to determine the relativity in the value of one landscape over another, an assessment is made of the exposure of each landscape unit from important viewing locations in a locality, and combines with the diversity of interest of each landscape unit. Thus, a unit comprising cleared land on the valley floor may be readily viewed from viewing locations in Armidale, however due to its lack of visual diversity, it would have a lower ranking of visual sensitivity than a prominent cleared ridgeline. A prominent vegetated ridgeline would have an even higher ranking. Thus, visual sensitivity is a measure of the value of each landscape unit relative to each other.

The EDAW Study identifies important viewing locations within Armidale. Since the completion of that Study, the Highway By-pass has been opened, thus becoming a primary viewing location. Additional primary viewing areas include the Dumaresq Creek recreation corridor. The important viewing locations are mapped on Figure 4.

7.3.4 Visual Management

The results of the visual sensitivity analysis of each sector provide the basis upon which management strategies of the land are based. Prior to determining the appropriate management strategy, goals have to be established in respect to the preferred landscape backdrop for Armidale. Should this be densely wooded forest or open rural farmland, or a combination of both? Irrespective of the desired preference, those areas considered to be of prime scenic value need to be identified along with lands which have a lesser scenic value.



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-  Primary Roads/Railway
-  Secondary Roads
-  Outlook Locations

Figure 4
Viewing Locations

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Land management units for each sector were established as follows:

- Lands of high scenic value - these lands are mapped as "Prime Scenic Protection".
- Lands with moderate scenic value which give support to lands of high scenic value or support the retention of existing vegetation to assist in providing green belts between various land uses are mapped as "Support Scenic Protection".

7.3.5 Visual Assessment - North West Sector

The North West Sector is characterised by a wooded hill on the New England Highway Campus (1,080 m AHD) and scattered trees on elevated farmland. The water tank on the eastern part of the Sector provides a visual focus, extenuates the landform, and provides one of several visual nodal points. The others being:

- UNE Hill
- Stand of pine trees on skyline near Clarks Road
- Vegetated knoll near By-pass

The Sector is readily visible from the By-pass and elevated lands near Duval High School.

The vegetation pattern was mapped from aerial photographs and site survey and appears as **Figure 5**. The major ridgeline extends from UNE Hill and extends northerly. A spur ridge runs south towards the By-pass. The ridge at the water tank, while being distinctive when viewed from the west, is not readily visible from the By-pass or lands to the south due to the existence of more elevated skylines to the north.

Landscape Units

The Landscape Units for the North West Sector appear as **Figure 6**.

These comprise both vegetated and cleared ridgetop lands and slopes.

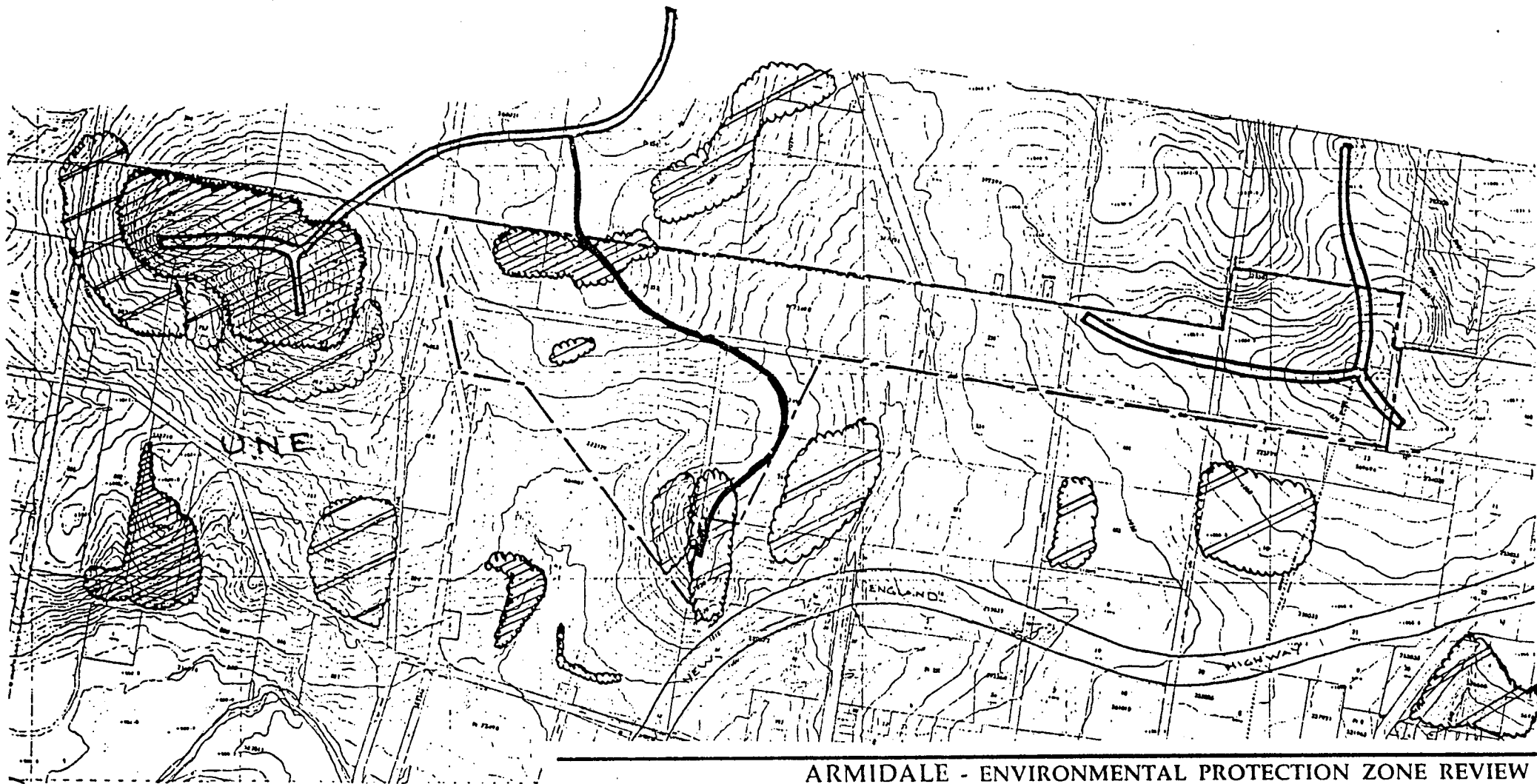
Visual Sensitivity

Visual Sensitivity is displayed as **Figure 7**. The ridgetop lands and those hillslopes which are readily visible from the By-pass have been assessed as being highly visually sensitive. Adjoining lands have moderate visual sensitivity.

Landscape Management Units

Landscape Management Units for the North West Sector are set out on **Figure 8**. Those lands assessed as being of high scenic value are UNE Hill, the knoll adjoining the By-pass, the pine tree knoll and the water tank knoll. Giving the visual support to these core lands are adjoining elevated lands.

The Prime Scenic Protection lands are considered to be most sensitive to visual disturbance. The contribution these lands make to one's visual experience could be enhanced through reafforestation, particularly on the By-pass knoll and water tank knoll. The supporting scenic protection lands have the capacity to support urban forms, however such development would require extensive vegetation treatment to reduce visual impact. The consequence of such development would result in a visual transformation from rural farmland to dense forest. If this transformation was not considered appropriate, then these lands should be excluded from further development.



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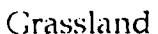


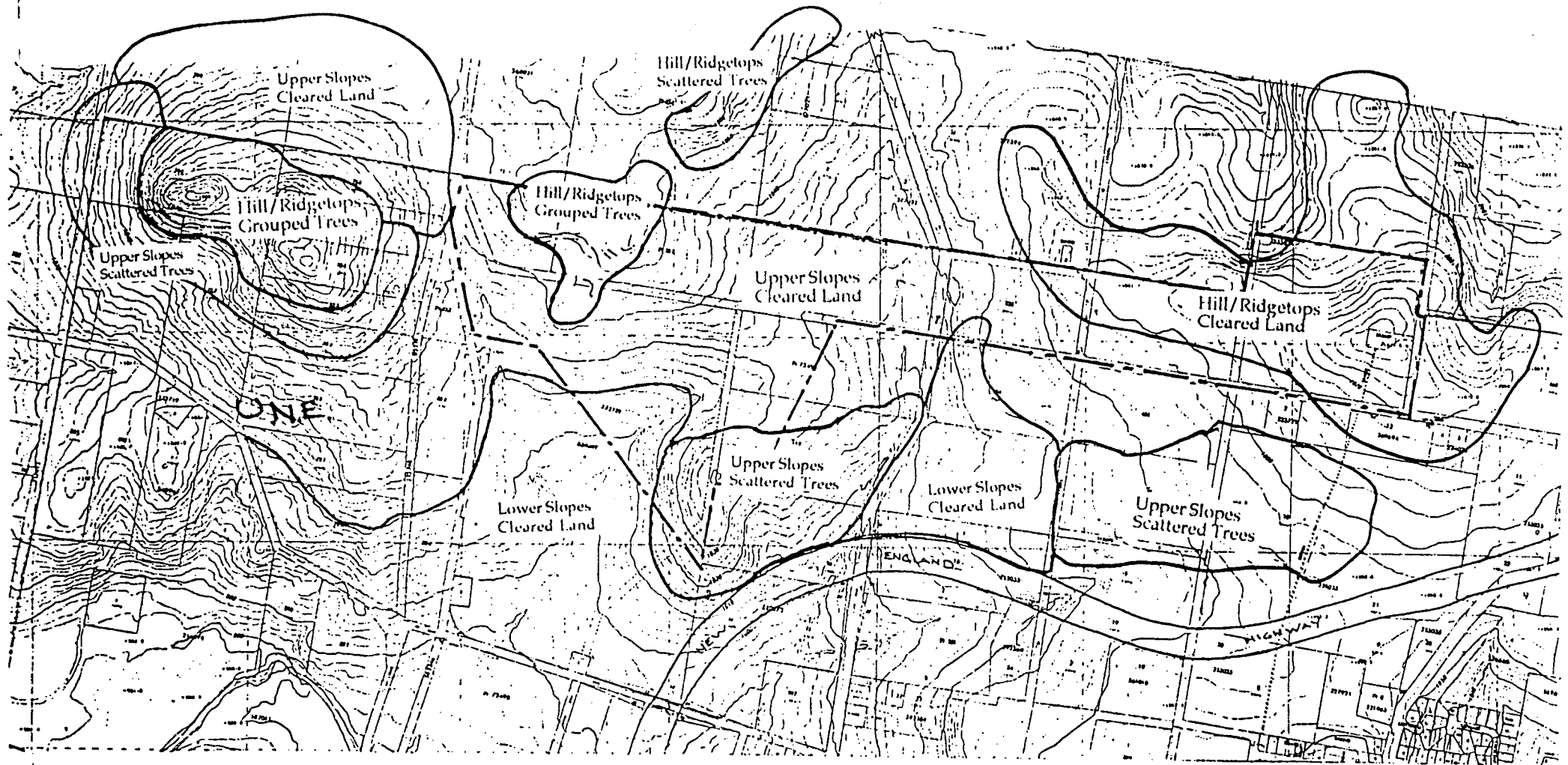
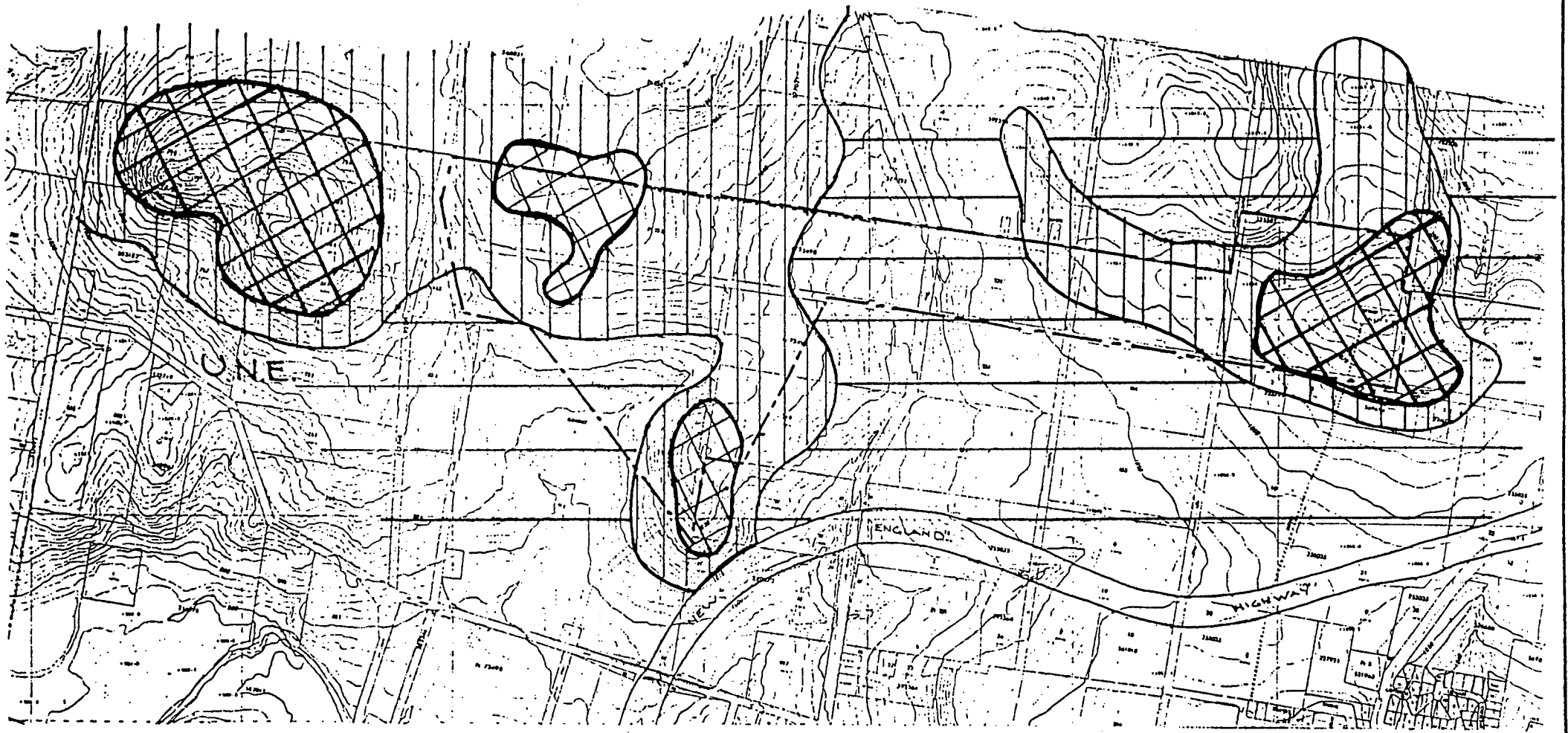
-  Woodland
-  Scattered Trees
-  Grassland
-  Major Ridgeline
-  Minor Ridgeline

Figure 5
 North West Sector
 Vegetation/Ridgelines



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

Figure 6
North West Sector
Landscape Units



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

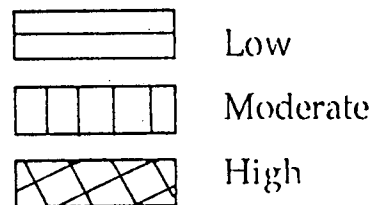
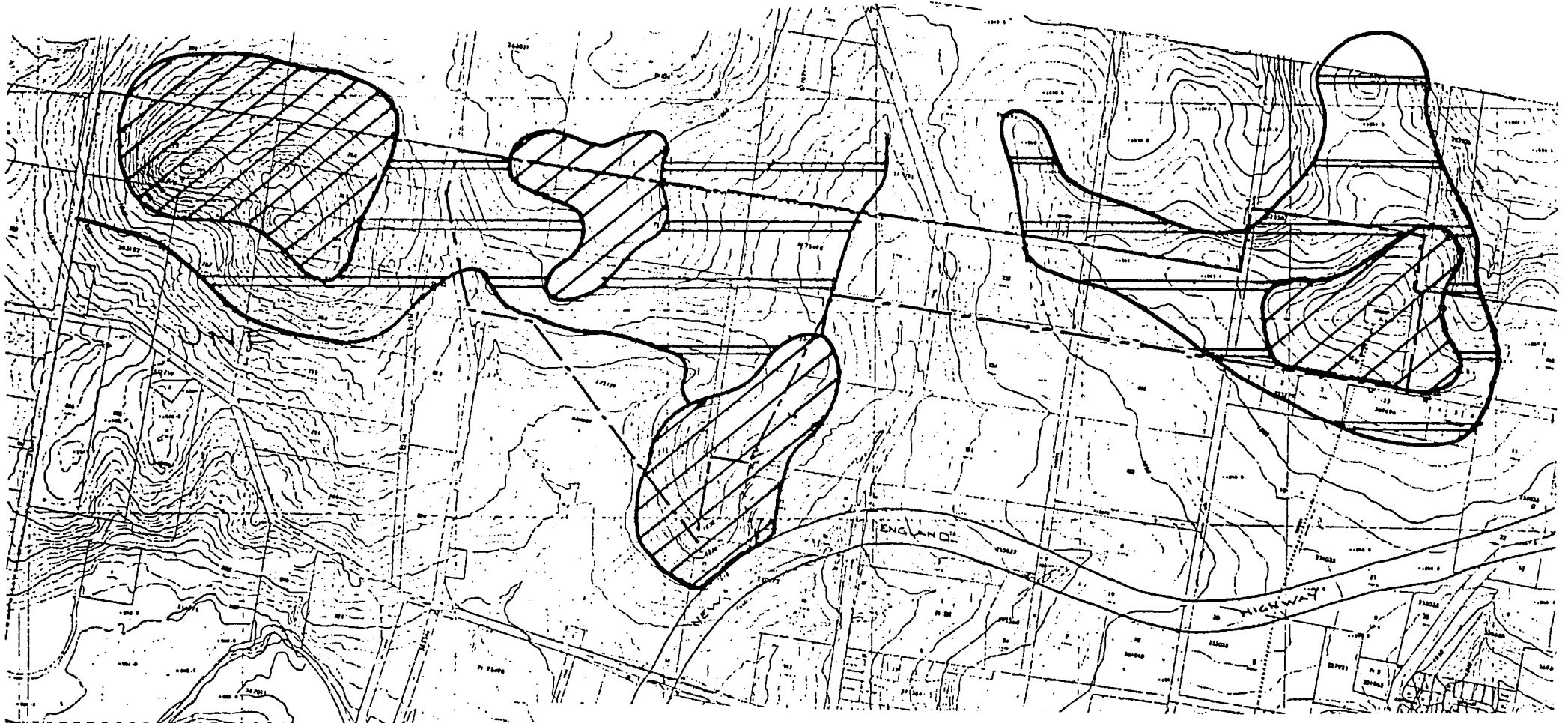
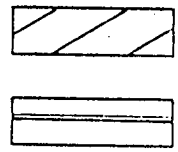


Figure 7
 North West Sector
 Visual Sensitivity



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW



Prime Scenic Protection Lands
 Support Scenic Protection Lands

Figure 8
 North West Sector
 Landscape
 Management Units

7.3.6 Visual Assessment - North East Sector

The North East Sector is characterised by steep vegetated lands rising to a ridgeline. Stoney Ridge Road and Apple Tree Road generally follow the ridgeline and these areas enjoy excellent views over the City. Urban development is expanding in a north easterly direction and has extended to the foothills of the Sector. In one location, residential subdivision has occurred on steeper land considered to be visually sensitive (Chestnut Avenue).

The Sector is dominated by hobby farm and rural residential allotments (4000m² to 8 ha) with most dwellings being hidden from view by native vegetation. Regeneration of much of the higher lands of the Sector in recent decades has resulted in a generally good cover of vegetation. When viewed from both the Dumaresq Valley and higher locations, the Sector appears well vegetated. Mt Killalee (1,179 m AHD) and nearby ranges result in the Sector becoming "visually absorbed" with adjoining lands when reviewed from Arboretum or by-pass locations.

Vegetation

The vegetation pattern was mapped using recent aerial photographs (1993) and appears as Figure 9. Denser vegetation extends around the Rockvale Road area and extensive areas of scattered native vegetation dominate the Cooks Road, Apple Tree Hill Drive and Ellowera Road locations. The majority of the Sector is used for grazing purposes with the exception of the smaller lots. Generally the smaller lots are heavily vegetated. This is particularly noticeable in the Wells Avenue subdivision where some ten lots (0.4 ha) exist within a densely forested area. Most of this vegetation has grown since the subdivision was developed in the 1970's.

The Sector is characterised by a dominant ridgeline with three minor ridgelines extending in a western direction. Several other spurs and gullies descent from these ridges and with the vegetation result in the creation of an attractive landscape.

Landscape Units

The upper slope landscape unit dominates the Sector (Figure 10). The hill/ridgeline unit contains scattered trees and appears as one unit.

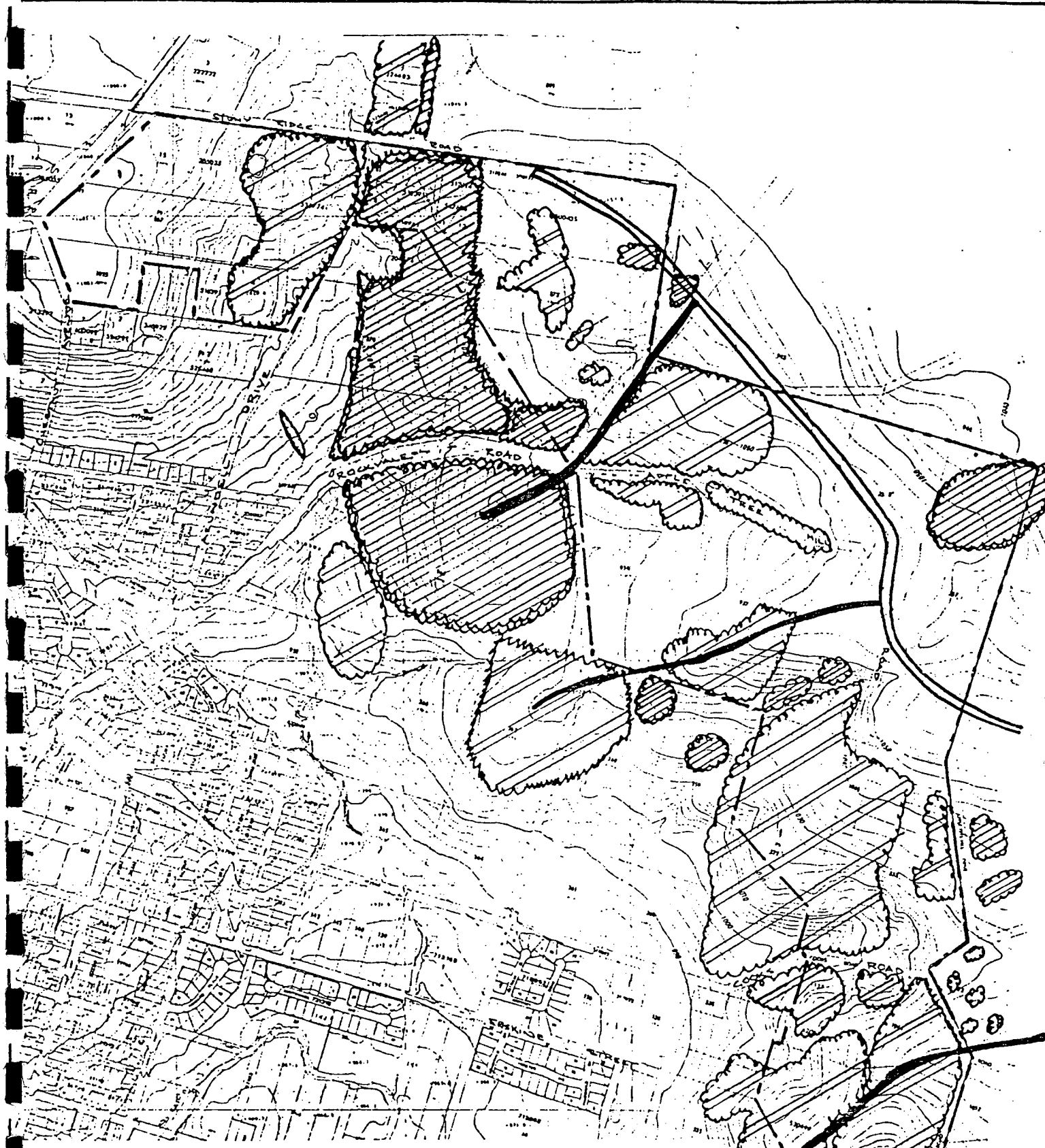
Visual Sensitivity

The Sector contains significant areas of land considered to be of a high or moderate level of visual sensitivity. These areas extend down the slopes to include all the steeper land within the Sector. The ridge plateau is fairly narrow and its contribution to the Sector's scenic quality is significant (Figure 11).

Landscape Management Units

The landscape management units reflect the visual sensitivity of lands in the Sector. The ability of the ridgetop lands to absorb man-made structures is considered to be lower than that of the steeper slopes, due to the visual impact on the skyline. This is evidenced from a recently erected dwelling on Apple Tree Hill Road (red colourbond roof) which is visible from several distant locations.

Further regeneration/landscape of the Support Scenic Protection lands would further enhance the scenic value of the Sector. Activities proposed for these lands should recognise the need to ameliorate visual impact and enhance the landscape through further native plantings.



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW






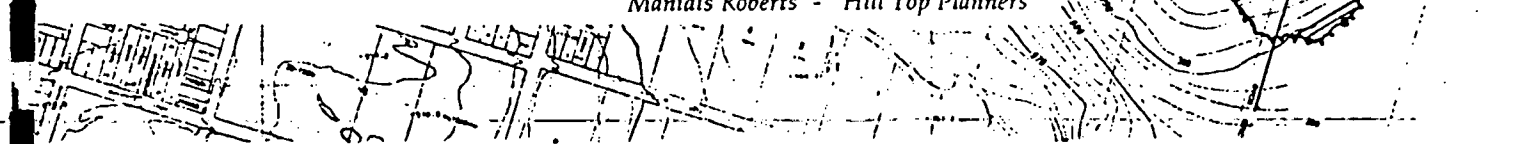
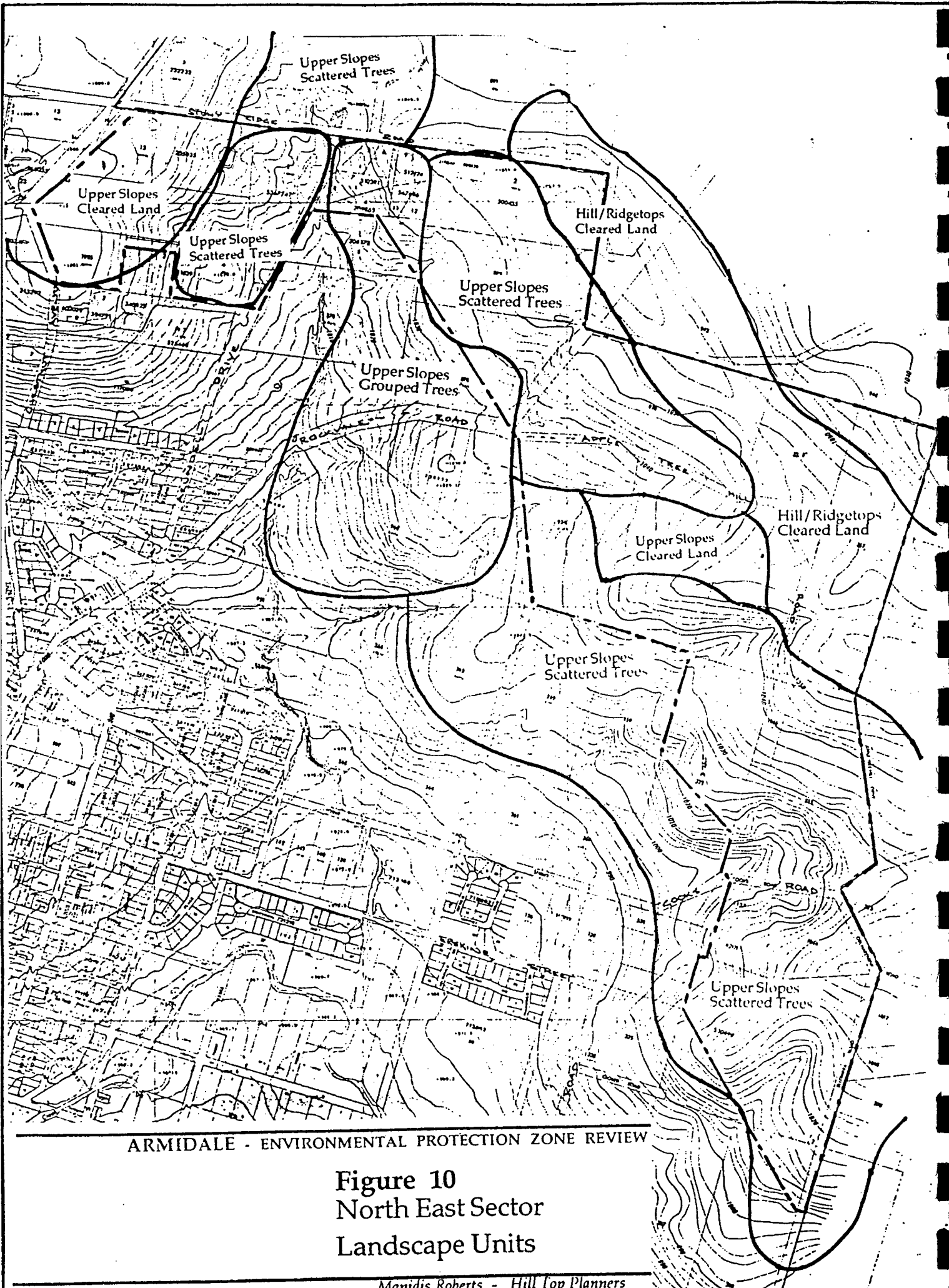
-  Woodland
-  Scattered Trees
-  Grassland
-  Major Ridgeline
-  Minor Ridgeline

Figure 9
North East Sector
Vegetation/Ridgelines

Manidis Roberts - Hill Top Planners

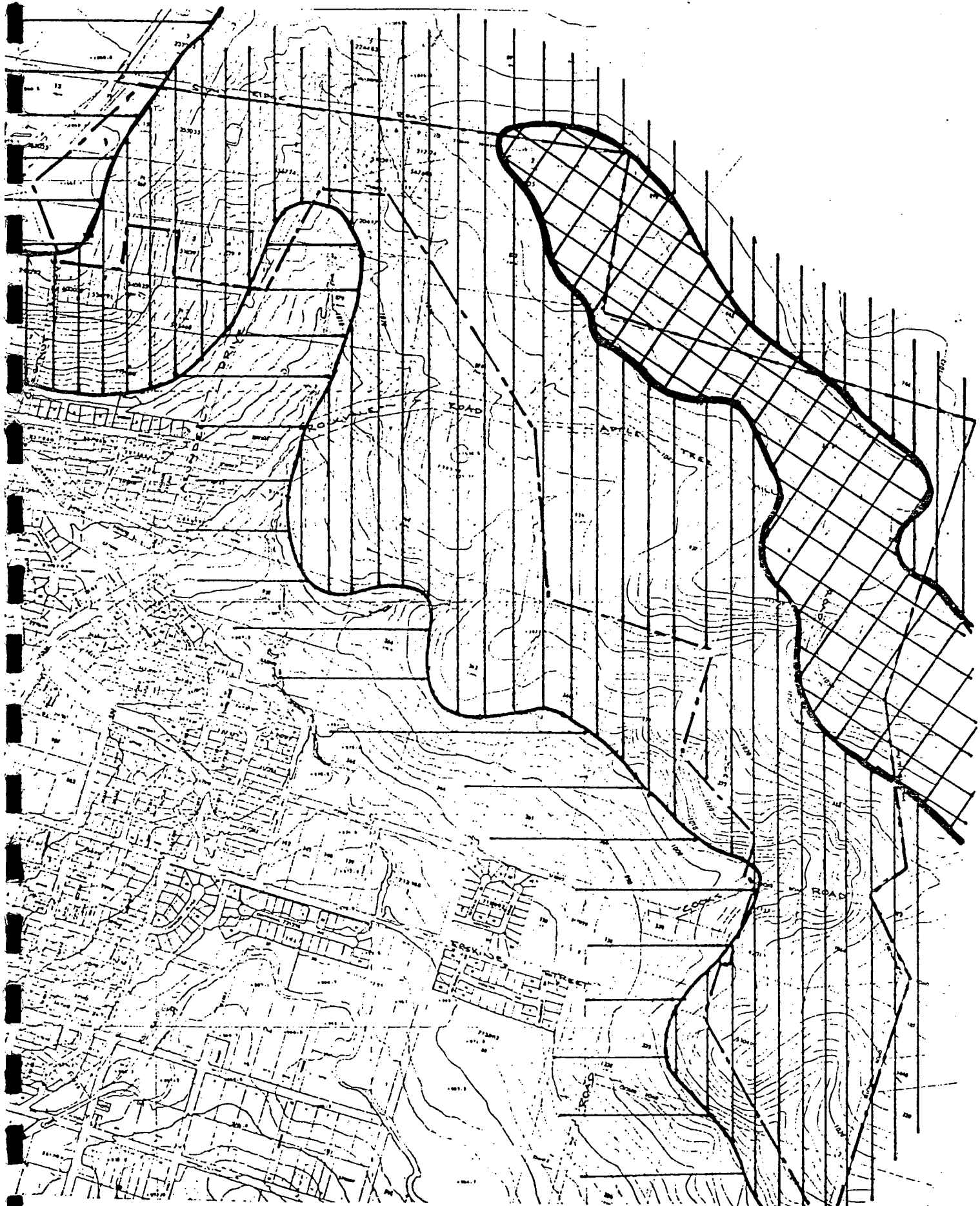




ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

Figure 10
North East Sector
Landscape Units

Manidis Roberts - Hill Top Planners



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

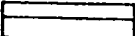
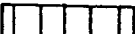

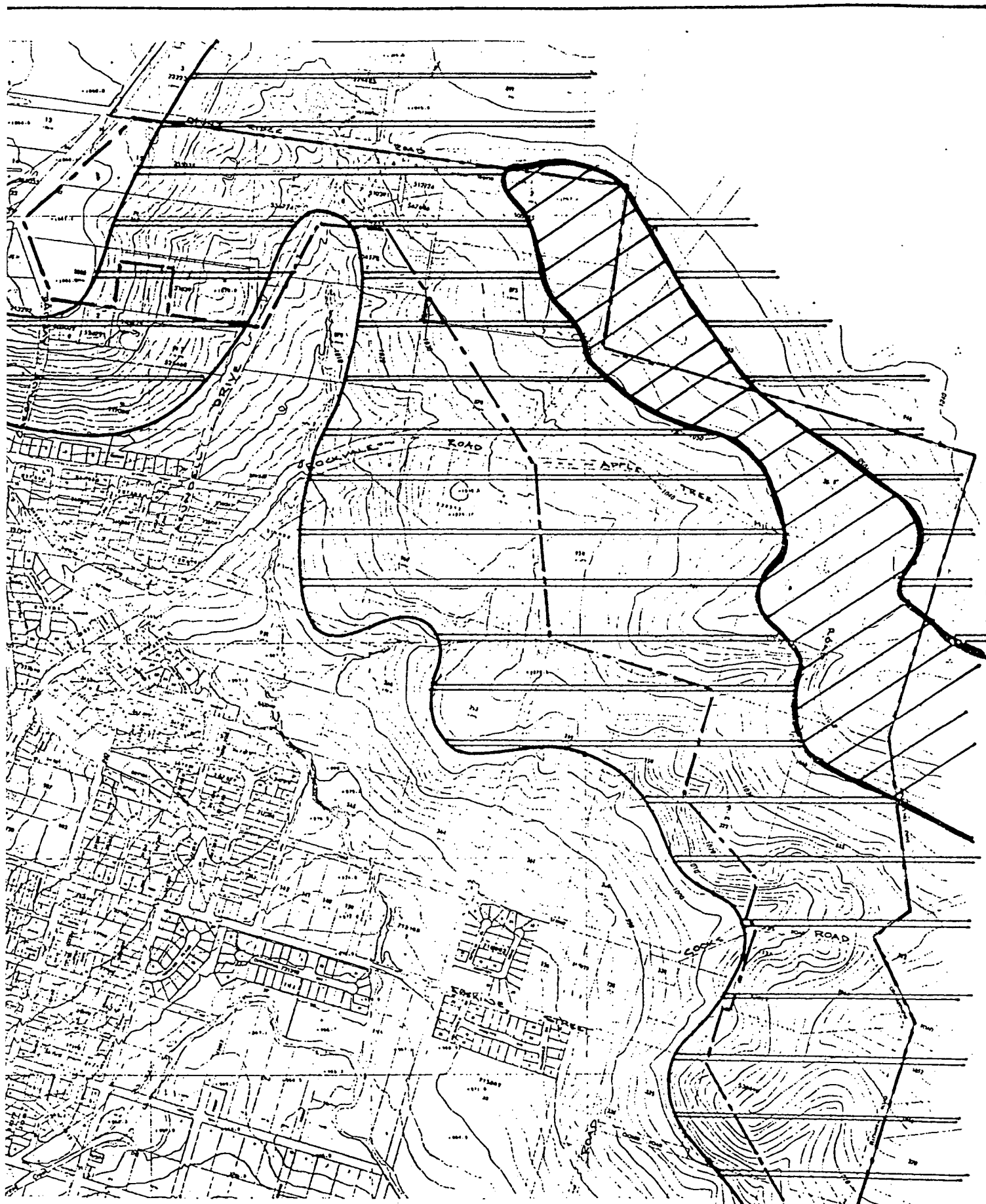
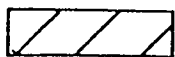
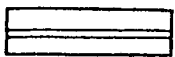
-  Low
-  Moderate
-  High

Figure 11
 North East Sector
 Visual Sensitivity



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

Figure 12
 North East Sector
 Landscape Management
 Units

-  Prime Scenic Protection Lands
-  Support Scenic Protection Lands

7.3.7 Visual Assessment - South Eastern Sector

The South Eastern Sector is located on an elevated area of land between the developing southern suburbs and the Myrtle Drive industrial estate. Elevation of 1,030 m AHD is some 30 to 70 metres lower than the other sectors. The Sector is visible from Dangarsleigh Road, Long Swamp Road and Castledoyle Road, however no landscape/topographic features are dominant. More elevated lands to the south east provide a strong backdrop for the Sector, with Arthur's Seat and Bald Knobs Hill (1,102 m AHD) being dominant landscape features.

Vegetation/Ridgelines

The vegetation of the Sector appears on Figure 13. The western lands are characterised by extensive areas of scattered native species with the eastern lands containing some good stands of native and exotic species. Lying between are large areas of cleared grazing land.

The major ridgeline is located on lands in the Shire, adjoining Castledoyle Road. A minor ridgeline defines the higher lands extending between Long Swamp Road and Dangarsleigh Road.

Landscape Units

The Sector comprises seven landscape units and these are mapped on Figure 14. Due to the lands' lower elevation, the Sector contains no hill/ridgetop lands.

Landscape Visual Sensitivity

Visual sensitivity analysis identified the elevated vegetation lands as being of moderate landscape sensitivity. The balance of the Sector is assessed as being of low landscape sensitivity (Figure 15).

Landscape Management Units

No lands in the Sector were considered to be of Prime Scenic Protection value due to their ability to absorb controlled visual alteration without significantly impacting upon the landscape quality of the Sector. While the land identified as being support scenic protection contains the elevated vegetated lands, the cleared land between these areas has been included due to the proximity of these lands to the industrial activities. Any proposed landuse activities on these lands will require careful visual impact assessment. Revegetation of these lands is recommended in conjunction with development.

ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW






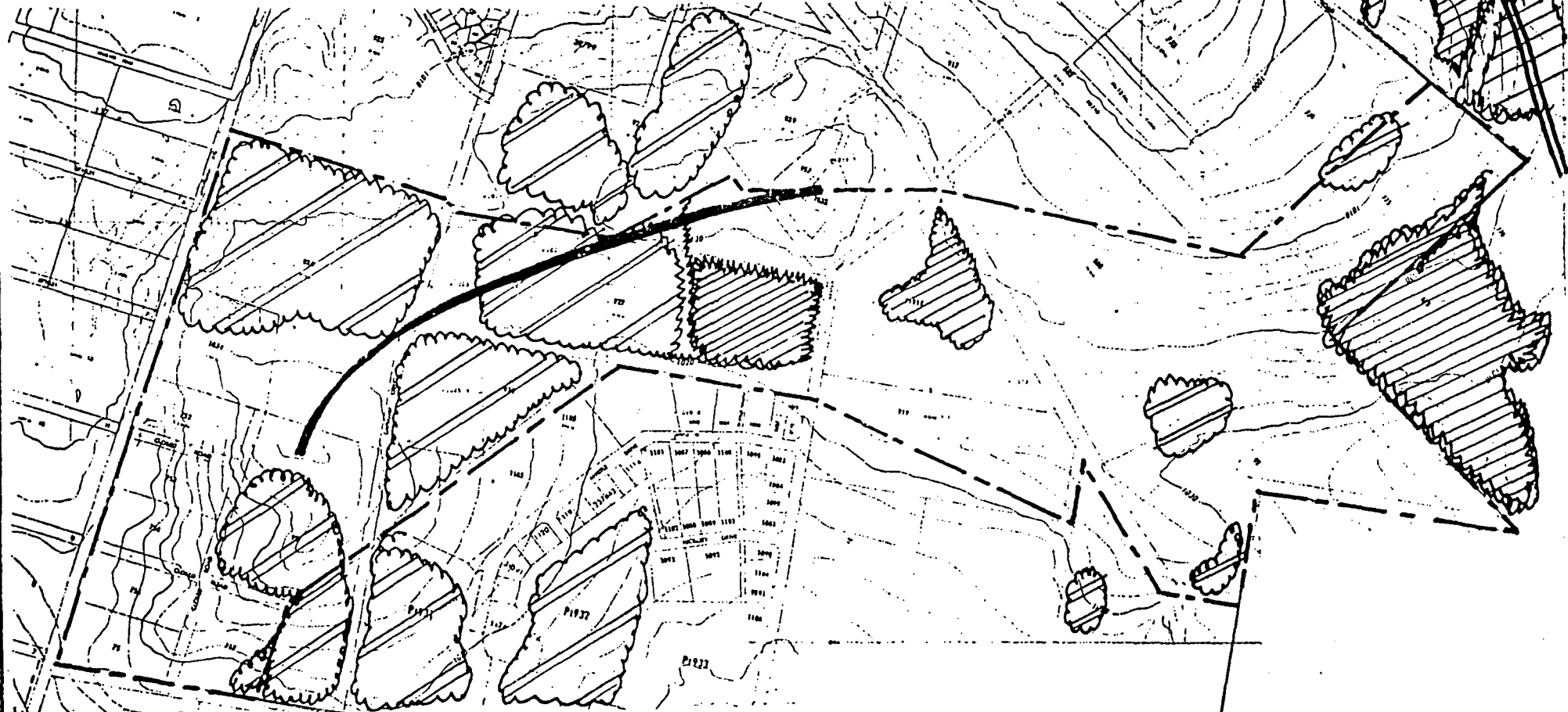
-  Woodland
-  Scattered Trees
-  Grassland
-  Major Ridgeline
-  Minor Ridgeline

Figure 13
South East Sector
Vegetation/Ridgelines

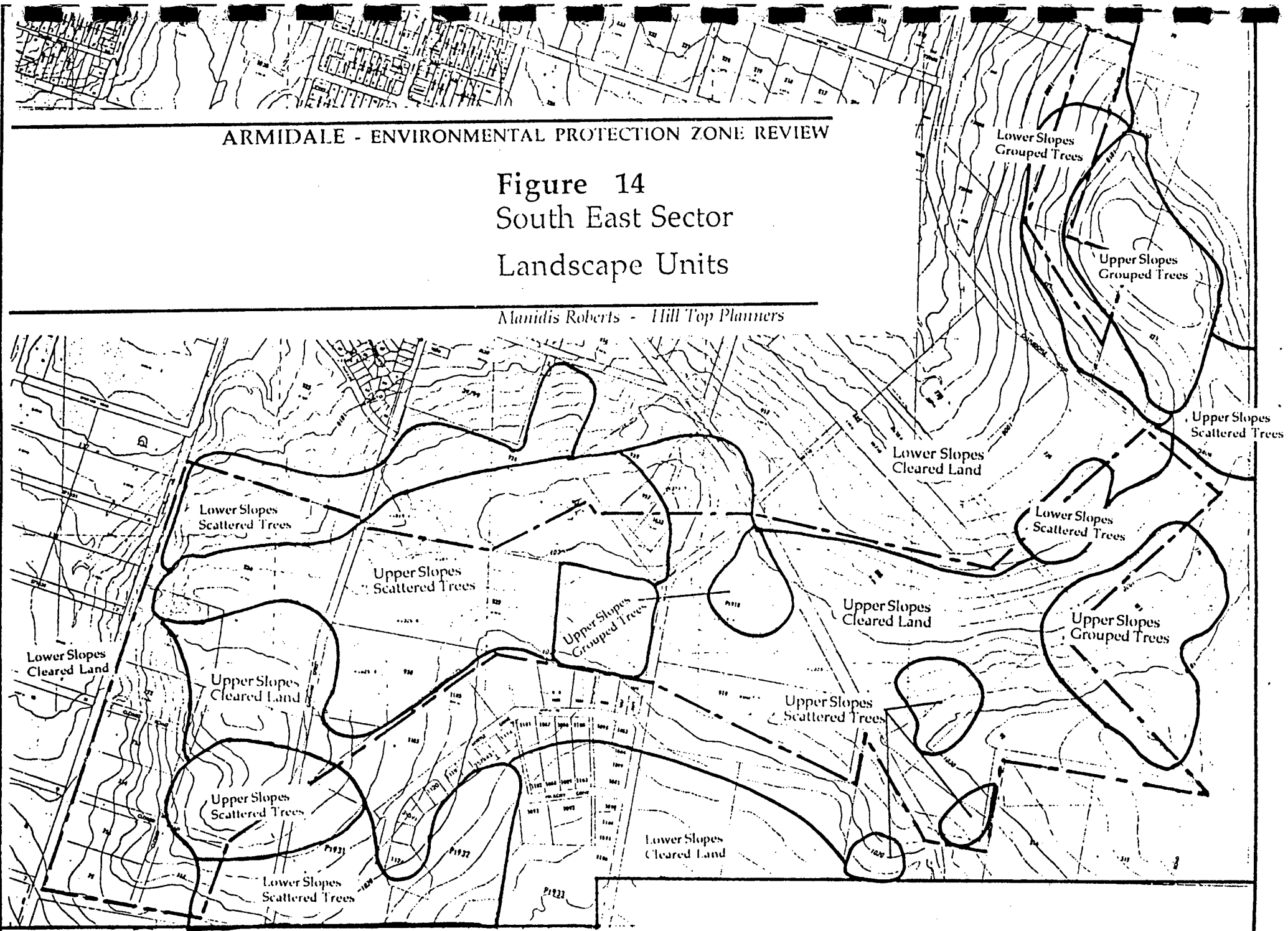
Manidis Roberts - Hill Top Planners



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

Figure 14
South East Sector
Landscape Units

Manidis Roberts - Hill Top Planners





ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

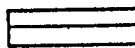

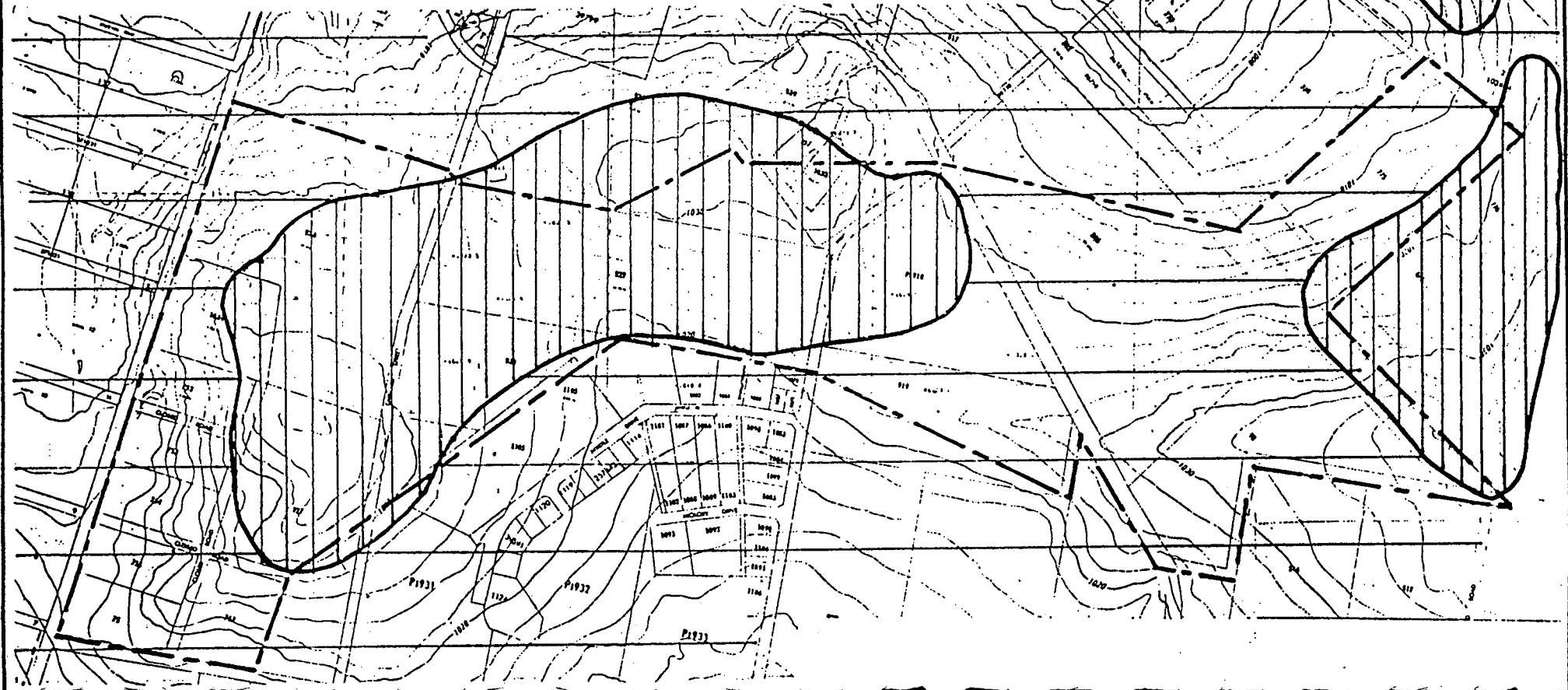
-  Low
-  Moderate

Figure 15
South East Sector
Visual Sensitivity

Manidis Roberts - Hill Top Planners





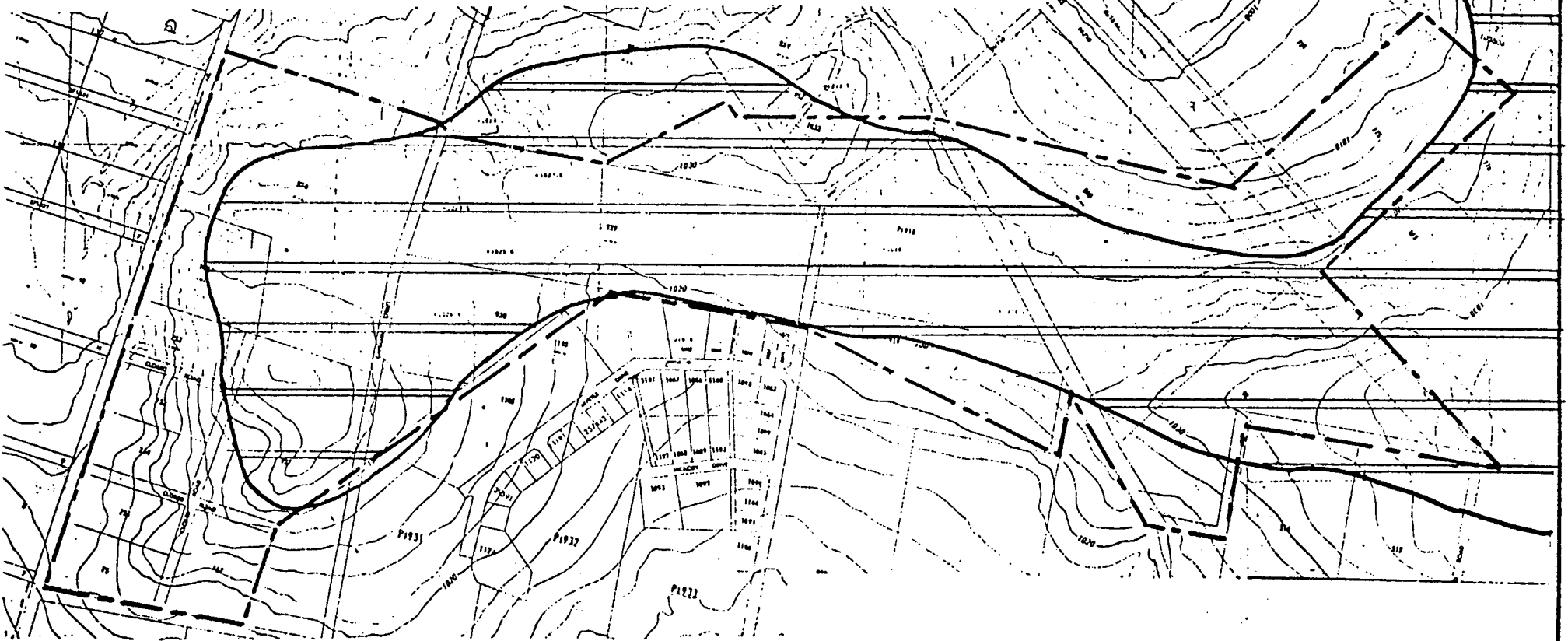
ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

Figure 16
South East Sector

Landscape
Management Units

 Support Scenic Protection Lands

Munidis Roberts - Hill Top Planners



7.3.8 Visual Assessment - South West Sector

This Sector contains both steep land and undulating plateau with few areas of dense woodland. The Sector is located immediately to the south of existing urban development. One residential estate (St Patricks), has extended into the Sector, however its visual impact has been minimised due to the higher lands located to the south (in the Shire).

The adjoining southern lands were the subject of Dumaresq Shire's (EDAW) study. Views of the Sector are available from Drummond Park, the by-pass and the University, while motorists travelling south along Dangar, Marsh or Taylor Streets directly view the cleared hillside lands of the eastern portion of the Sector. Much of this land is located within the Shire.

Vegetation/Ridgelines

The Sector contains small areas of woodland. Scattered native vegetation and cleared grazing land are the predominant vegetation association. There is little evidence of re-forestation or regeneration of eucalyptus forests, however where grazing does not occur, regrowth is emerging (Figure 17).

A major ridgeline extends from the higher lands in the Shire to Bona Vista Road. When reviewed from Drummond Park, this ridge is dominant and is characterised by the television towers (southern) and skyline vegetation extending to the large Bunya Pines at *Bona Vista*.

Landscape Units

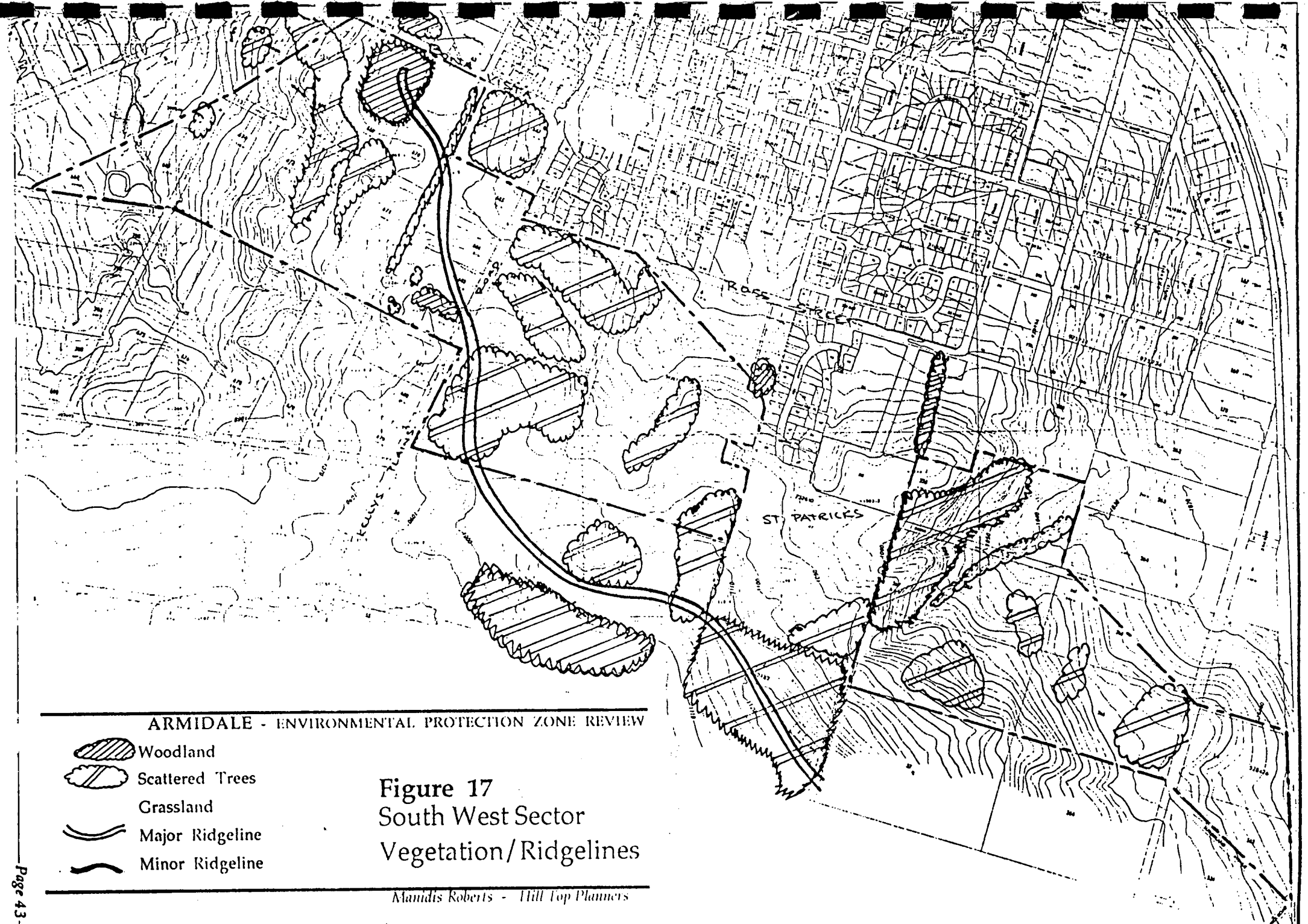
The landscape units have been mapped on Figure 18. Six landscape units were identified.

Landscape Visual Sensitivity

Landscape visual sensitivity of the Sector emerged as a combination of landform/landscape, and the visibility of lands when viewed from primary viewing locations. The ridgelands were assessed as being of high visual sensitivity with the balance of the Sector being of moderate visual sensitivity (Figure 19).

Landscape Management

The majority of lands in the Sector are considered to be of scenic value and would be visually impacted upon if developed with man-made activities. While the ridgelands have been assessed as being of prime scenic protection value, the upper slopes, while capable of absorbing man-made structures, could only be developed if associated landscaping resulted in a positive visual contribution to the hillside. Both ridgelands and upper slopes require revegetation. Due to the scattered native vegetation on these lands, visual intrusion by man-made structures should not occur until revegetation of the upper slopes was sufficiently advanced to lessen visual impact.



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW





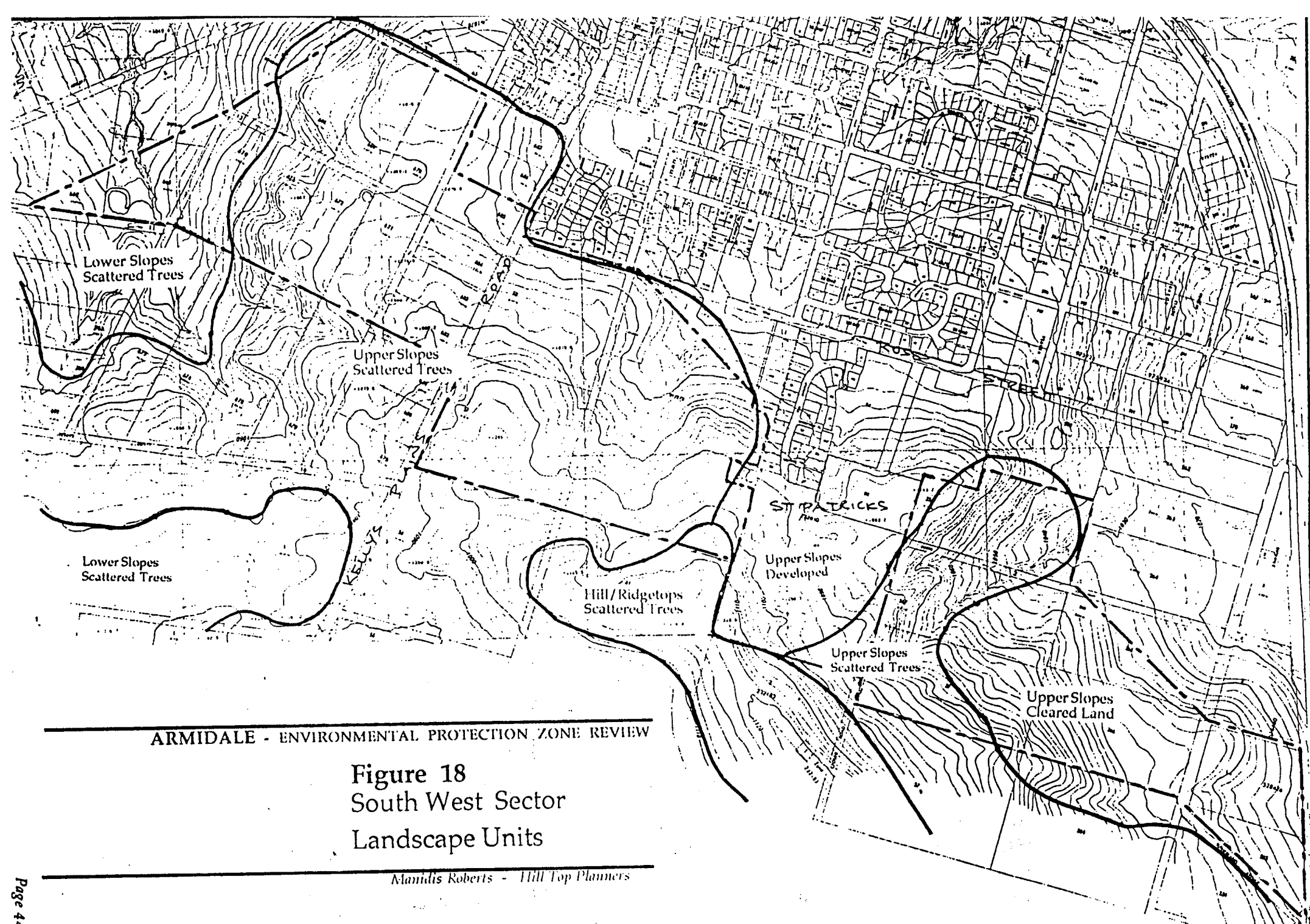
-  Woodland
-  Scattered Trees
- Grassland
-  Major Ridgeline
-  Minor Ridgeline

Figure 17
 South West Sector
 Vegetation/Ridgelines

Mamids Roberts - Hill Top Planners



ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

Figure 18
South West Sector
Landscape Units

Mamids Roberts - Hill Top Planners

ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

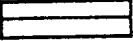


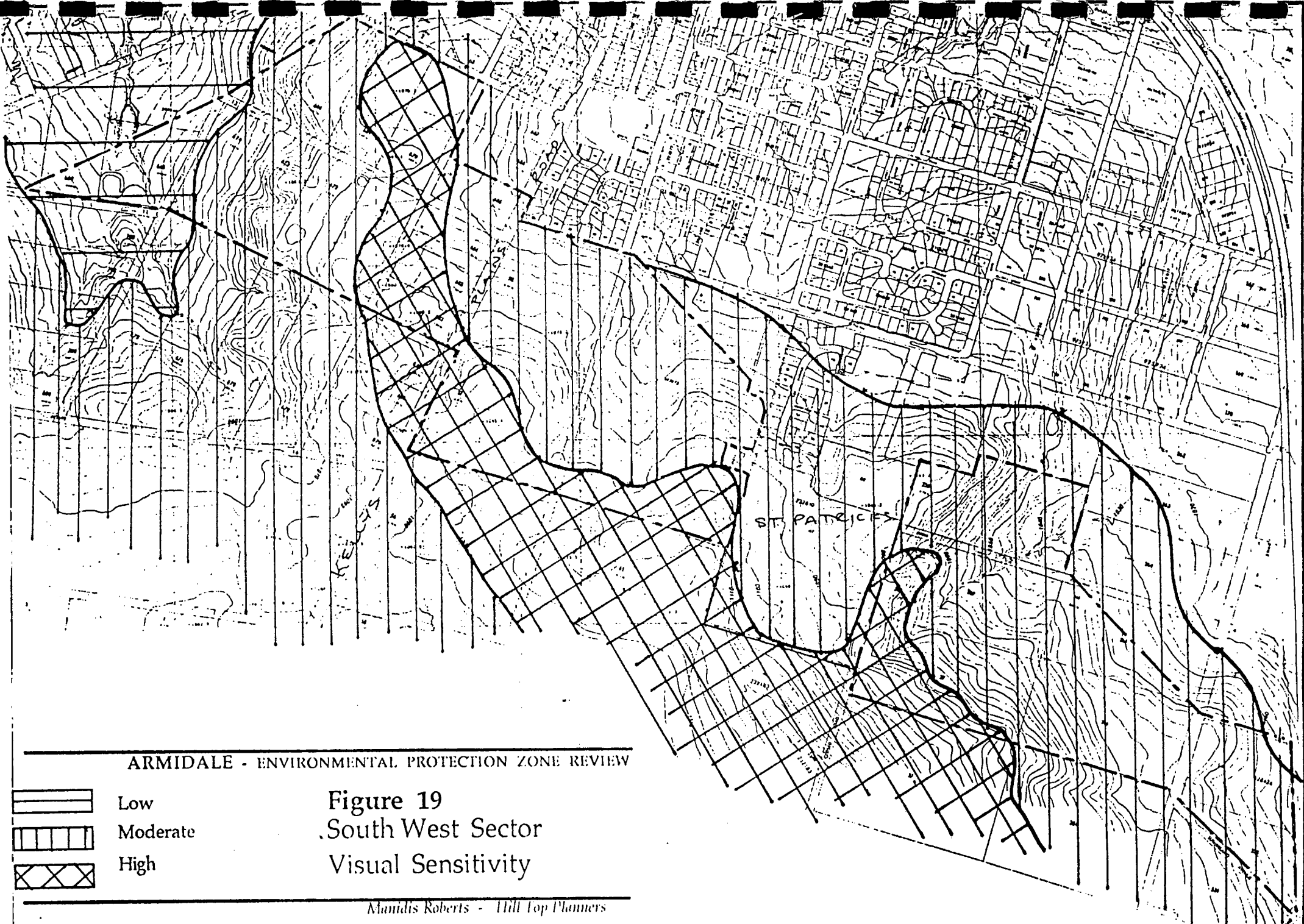
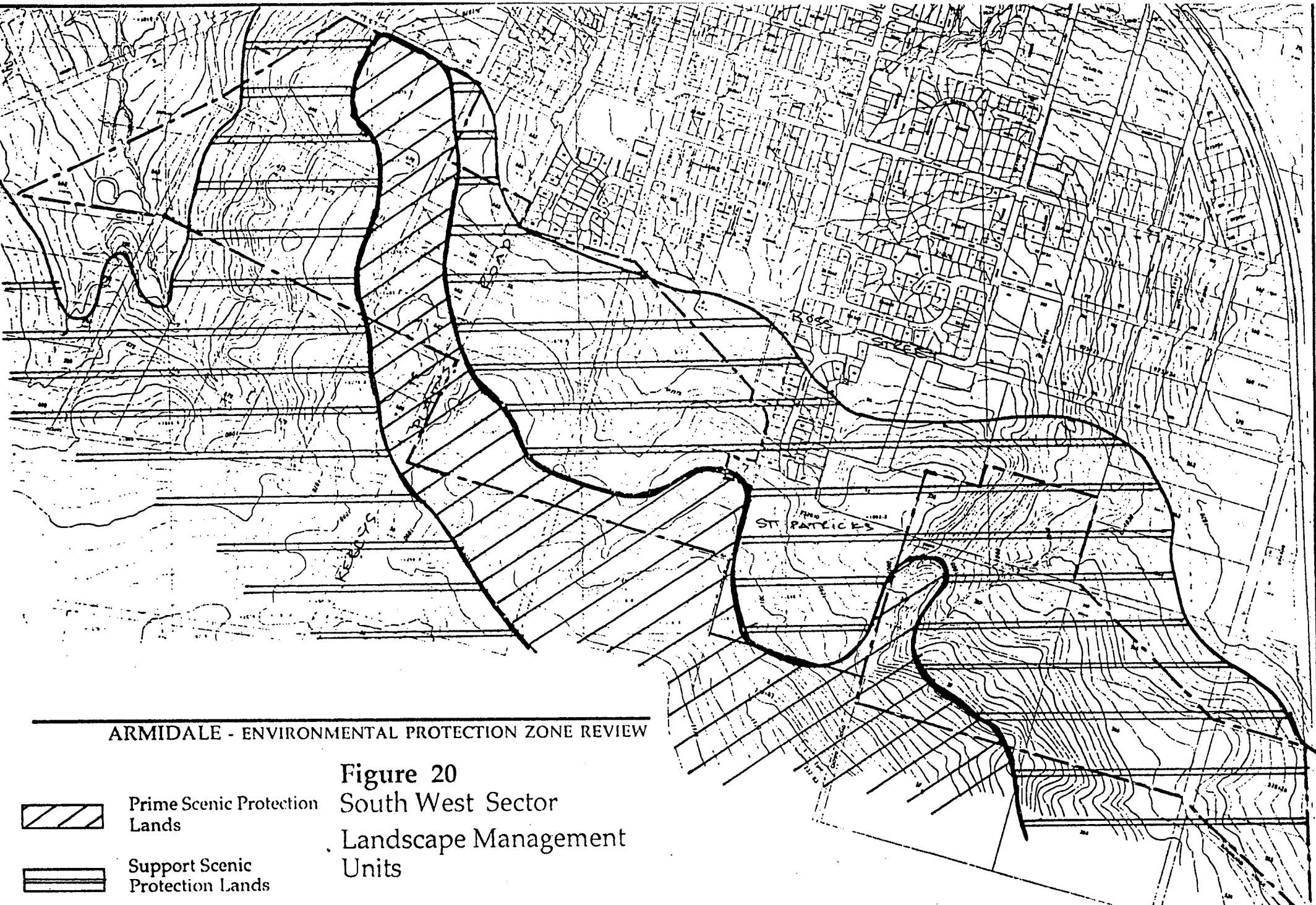
-  Low
-  Moderate
-  High


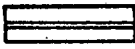
Figure 19
South West Sector
Visual Sensitivity





ARMIDALE - ENVIRONMENTAL PROTECTION ZONE REVIEW

Figure 20
 South West Sector
 Landscape Management
 Units

-  Prime Scenic Protection Lands
-  Support Scenic Protection Lands

8.0 MANAGEMENT STRATEGIES

8.1 Directions and Goals

The visual assessment identified hill/ ridgetop lands as being of either Prime or Support Scenic Value. In order to establish the appropriate planning mechanism to ensure the landscape value of these lands is protected and enhanced, an overall set of goals for these lands needs to be established. Community consultation, discussion with Council Staff and examination of relevant studies, indicates the following goals are appropriate:

- The hills and ridges should be densely wooded to provide a natural landscape-backdrop to the City.
- Revegetation of the hills/ ridges should be restricted to indigenous species, not exotics.
- Any development (subdivision) of the land should ensure the end visual state is of higher scenic value than what currently exists.
- Retention of existing trees should be strongly enforced.
- Natural growth should be encouraged through discontinuation of grazing.
- With the exception of well designed utility installations, no man made feature should intrude into the skyline.

In order to ensure these goals are met and can be enforced through the planning process, it is necessary to examine the options available to achieve these.

8.2 Options

8.2.1 Tree Planting Schemes

The subject area is too extensive to be manually planted with native species. Another option is through regeneration or Government funded incentive schemes. Regeneration would result in a loss of income for landowners through removal of stock, and may lead in increased bushfire risk. LandCare, Greening Australia or Council funded schemes should be further investigated as a means of providing an incentive for landowners to plant indigenous species.

8.2.2 Land Subdivision

The Dumaresq Environmental Study - Visual Assessment (EDAW 1993), examined the potential for tree replanting and visual improvement through permitting closer rural settlement. The authors argued that by reducing lot size to 4 ha in Prime Scenic Lands, grazing practises would cease, and landowners would be encouraged to revegetate their land via either natural regeneration or tree planting. The 4 ha area was considered to be small enough to be managed as a rural residential lot. In less visually sensitive areas, a lesser minimum subdivision size (2 ha) was proposed. The EDAW study concluded that to attain the wooded hills and ridges goal, strict controls in the form of a Development Control Plan must be enforced to ensure the desired visual effect is achieved. The following general principles were suggested:

- the removal of stock to enable natural regeneration
- the development of smaller holdings to remove the need for grazing
- permit subdivision of the land to a minimum lot size of 4 ha
- the retention of a significant proportion of each parcel of land, of the highest elevation within that parcel, for natural regeneration
- the siting of all buildings below the skyline

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- the control of building size, form, colour and materials
- the careful siting of roads, fences, power lines and other services to achieve visual integration
- the maintenance of treed backdrop and foreground for all buildings to reduce their visual impact⁸

While the guidelines are considered to be appropriate to achieve the objectives, the key issue is how these can be effectively implemented. The Dumaresq DCP does not address the issue of subdivision design or the co-ordination between landowners. If this approach is to be effective a much more comprehensive set of guidelines in the form of a DCP would be required. Given the unique features of each Sector, it is considered appropriate that a separate DCP may need to be prepared for each Sector.

8.2.3 Economic Incentives

There currently exists few large landholdings within those lands identified as either Prime or Support Scenic Protection (SP). Due to the relatively small size of these land holdings, regeneration of native species has occurred over the last decade and over time it is anticipated this process will continue. Thus, the goals could be attained through extending the existing EP restrictions to include all Prime and Support SP lands, ie. 10 ha minimum. In order to compensate landowners for a perceived loss of development potential a differential rating structure could be introduced, thus reducing land rates to affected property owners.

8.2.4 Land Acquisition

In order to ensure the Prime SP lands are protected for all time, acquisition should be considered. This approach has been undertaken with considerable success at Gosford and Wollongong Council is currently experimenting with something similar. Such an approach would be expensive and would need to be co-ordinated with Dumaresq Shire. The funding source for such a scheme could be through S.94 Contributions paid in respect of development on the Support SP lands through a bonus scheme or levied on all subdivision within the City.

The legalities of this approach require closer examination. While such schemes are effective in localities where land is highly sought after and thus expensive, it may not be appropriate for Armidale. Once acquired, this land would need to be maintained by Council.

8.3 Preferred Options

The preferred option is a mix of the above, incorporating tree planting incentive schemes, rate reduction and development. A different mix of measures apply to each landscape unit. These measures are characterised as follows:

- Incentives
- Protection

Prime Scenic Protection Lands

These lands have been identified as being of high scenic value, requiring careful site management and re-forestation. Strategies should aim to conserve and enhance the ecological and scenic qualities of the hills and ridges.

⁸ EDAW 1993, P. 11, 12

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Incentives

- Rates: Recognise the importance of these lands to the City's image through a differential rating structure which results in a lowering of land rates relative to other lands.
- Trees: Provide support to landowners to reduce grazing to encourage regeneration and provide support to Greening Australia and Landcare Groups to plant native trees in cleared areas.

Protection

- Zoning: Amend the EP zone of Armidale LEP 1988 to include only Prime Scenic Protection lands. Maintain existing 10 ha average subdivision size and dwelling house provisions.
- Trees: A Tree Preservation Order to cover these lands.
- DCP: Prepare DCP to provide advise on the siting and materials of buildings; landscaping advice and the location of access roads.

Support Scenic Protection Lands

These lands have been identified as having moderate scenic value and contribute to the creation of the existing landscape harmony of the City. While these lands have the ability to absorb urban activity, controls are needed to ensure such development activity would not result in the loss of visual quality. The zoning of these lands should be amended to an urban use zone with scenic protection provisions and a Development Control Plan (DCP) be prepared.

Incentives

Development: Allow integrated development of the land based upon land capability assessment. This assessment would include:

- Geotechnical analysis of soils and substrata
- Slope and topography
- Archeological assessment
- Drainage
- Flora and fauna
- Access and utilities
- Visual impact
- Bushfire risks

Lot sizes should reflect the characteristics of the land. The recommended approach is linking minimum lot size with slope. Where land has a slope in excess of 5 percent, extensive excavation work is required both for roadworks and preparing building platforms. Experience has shown in these circumstances that small lot residential subdivisions result in minimum opportunity for large scale screen planting to be undertaken. If the scenic quality of the hillslopes is to be maintained while allowing urban development, the size of lots should be sufficient to accommodate large scale trees in locations which will not damage retaining walls or batters. The following is suggested as a guide:

- Average slopes in excess of 10% - minimum lot size of 1 ha;
- Slope between 5 and 10% - 5,000m²;
- Slope less than 5% - 2,000 m².

Tree Cover

- Existing trees to be retained where possible.

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- Encourage landowners to reduce grazing so as to encourage regeneration. Provide support to Greening Australia and Landcare Groups to plant native trees in cleared areas. Advise landowners that it is in their long term financial interest to encourage regeneration because prospective buyers tend to favour tree covered lots.

Envelopes

- Each allotment shall contain a site for a dwelling house (20 x 30 m), and this shall be located no closer than 10 metres from an allotment boundary and provide for a solar efficient house design.
- Access paths are to be at gradients of no greater than 10%.
- Each allotment shall contain sufficient area to accommodate the parking of two additional vehicles, external to the dwelling. This provision recognises that on large urban lots, visitors tend to park on site and land owners tend to seek to accommodate this need by providing increased level parking areas.
- Each allotment shall contain areas for large trees to grow, and "tree envelopes" (10 m x 10 m x 30 m high) are to be shown on subdivision applications at the ratio of one envelope per 500 m² of site area.

Protection

- Zoning: Support SP lands be zoned Urban Investigation (Scenic).
- DCP: A DCP be prepared for each of the Sectors, incorporating the development guidelines set out in this report. The DCP is to ensure the pattern of development is consistent with sound town planning principles and reflects Council's strategic planning for the City.
- Trees: Ensure Council's Tree Preservation Policy is enforced.

8.4 Development Guidelines

In order to achieve the abovementioned goals, through the closer rural settlement approach, a land capability study will be required for each Sector leading towards the preparation of a development strategy. This strategy would be implemented through a DCP. A key element of the DCP would be to ensure development was co-ordinated across land holdings in an orderly manner, and that the goal to achieve improved landscape quality of the hillslopes is achieved. These development guidelines would include:

- Site Analysis: Details on the preparation of land capability/site characteristics including existing landuse, agriculture, bushfire, site stability, visual features, flora/ fauna, micro-climate, utility services, community facilities and access.
- Preparation of Subdivision Layout detailing preferred road locations, lot size, tree retention and maintenance of bush corridors.
- House Siting/Design Detailing of how to select a good site for a dwelling, orientation, energy efficient design and materials.
- Landscaping: Details of how existing vegetation can be preserved and identification of sites for the growing of large native trees ie. "tree envelopes".

These provisions would result in lands identified as being required for urban/rural development, to be subdivided without loss of scenic value. Draft development guidelines are provided as **Appendix 6**.

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8.5 Zone Provisions

The following objectives and provisions are suggested for inclusion in a review of Armidale LEP 1988 to give effect to the preferred development strategy for the scenic protection lands.

Prime Scenic Protection Lands

Zone 7(a) Environmental Protection (Scenic)

1. Objectives of zone

The objectives of this zone are-

- (a) to retain attractive rural landscapes and areas for landscape protection in accordance with the strategy plan which reflects the existing character of the City;
- (b) to ensure the retention of the rural landscape by restricting future subdivision of land to an average allotment size of 10 hectares, based on existing legal allotments as at the appointed date;
- (c) to allow only development that maintains the rural setting of the City in relation to -
 - (i) the natural vegetation and drainage;
 - (ii) siting, height and bulk of building; and
 - (iii) external colour and texture of building; and
- (d) to allow only development which does not require the upgrading of existing utility services other than connection to a single dwelling-house.

2. Land to which the zone applies

This zone applies to hill and ridgetop land surrounding the City which is considered to be of prime scenic value.

3. Without development consent

Agriculture, other than ancillary dwellings, structures or intensive livestock keeping; Bushfire hazard reduction; Forestry, other than ancillary dwellings.

4. Only with development consent

Any purpose which, in the opinion of the Council, is consistent with the objectives of this zone.

5. Prohibited

Any purpose other than a purpose referred to in Item 2 or 3.

Support Scenic Protection Lands

Zone 2(a) Residential (Scenic)

1. Objectives of zone

The objectives of this zone are-

- (a) to provide for a mix of low density housing types and community service uses and those generally permissible with a residential zone.
- (b) to ensure all development is planned and carried out so as not to reduce the natural scenic landscape surrounding the City.
- (c) to ensure that residential development and subdivision is environmentally sensitive and site responsive.
- (d) to ensure that the form and siting of buildings, colours, landscaping and building materials are appropriate for and harmonise with the bushland character of the area.
- (e) to encourage the re-establishment of bushland in residential areas with sparse tree or canopy cover and encourage landscaping and regeneration of natural bushland.
- (f) to ensure that non-residential land uses are compatible with the residential character of the area.
- (g) to improve the energy efficiency of housing; and

2. Land to which this zone applies

This zone applies to land identified as being visually significant to the City and identified as being suitable for low density residential development.

3. Without development consent

Dwelling-houses.

City of Armidale - Environmental Protection Zone Review

4. **Only with development consent**
Any purpose which, in the opinion of the Council, is consistent with the objectives of this zone.
5. **Prohibited**
Any purpose other than a purpose referred to in Item 2 or 3.

Zone 2(b) Subdivision Investigation (Scenic)

1. **Objectives of zone**
The objectives of this zone are-
 - (a) to ensure land which is likely to be required for residential purposes is not used for a purpose is not used for a purpose, or subdivided in a manner, which is likely to limit future development of the land.
 - (b) to retain land in large undeveloped holdings until such time as it is required for housing.
2. **Land to which this zone applies**
All land identified as being "Support Scenic Protection", not being land zoned 2(a) Residential (Scenic Protection).
3. **Without development consent**
Agriculture, other than ancillary dwellings, structures or intensive livestock keeping; Bushfire hazard reduction; Forestry, other than ancillary dwellings.
4. **Only with development consent**
Any purpose which, in the opinion of the Council, is consistent with the objectives of this zone.
5. **Prohibited**
Any purpose other than a purpose referred to in Item 2 or 3.

9.0 CONSULTATIONS & RECOMMENDATIONS

9.1 CONSULTATIONS

Copies of the Draft Study report were forwarded to each member of the Consultative Committee for their consideration. The Consultative Committee meet with the consultant on 14th June 1995 to discuss the Study findings. An overview of the Study was presented and all members invited to raise issues of concern and discuss the proposed management strategies. Consultative Committee members were invited to submit formal submissions for consideration. One submission was received from AEC of Armidale. The submission raises the following concerns:

- Why is a change in the EP zone necessary given that there is no shortage of land for urban development.
- All existing native vegetation in the existing EP zone should be retained.
- Encourage the reforestation of cleared lands.
- Subdivision of the land, irrespective of lot size will result in the removal of some existing vegetation.

The proposed management strategy seeks to provide a mechanism which will result in increased vegetation cover on the hillslopes. Council has very few avenues open to it apart from actively encouraging the existing landowners to the revegetation of the hillslopes. The concerns raised by AEC should be further debated by the community during the exhibition process and LEP formulation stage.

9.2 RECOMMENDATIONS

The following recommendations are made:

1. The existing boundaries of the Environmental Protection zone should be amended so as to more accurately reflect their perceived purpose of maintaining the natural visual ridgetop curtilage to the City.
2. Existing zoning restrictions should be maintained within the revised Environmental Protection zone and the owners partly compensated by some form of local rating relief.
3. Those lands identified as being of "support scenic" quality be appropriately zoned and development controls be formulated so as to ensure the scenic quality of these lands is enhanced over time through allowing forms of urban development which provide for extensive landscape opportunities.
4. The Study be publicly exhibited and all property owners affected by the proposed zoning changes be invited to comment on the preferred management option.
5. The findings of the Study together with public comment, be included within the planning process leading to the formulation of any future LEP for the City and adjoining Dumaresq Shire lands.

City of Armidale - Environmental Protection Zone Review

REFERENCES

- Armidale LEP 1988.
- EDAW "Visual Assessment" report for Dumaresq Shire Council (1993).
- Dumaresq Local Environmental Plan No. 1 (as amended).
- Dumaresq DCP No. 3 - Development In the Environmental Protection (Scenic) Zone, (15th December 1994).
- Armidale-Dumaresq Planning Strategy (1995).
- A Landscape Assessment of the Southern Mornington Peninsula, Victoria University of Melbourne Publication No 2, 1974.
- Lismore City Council - DCP No 22 Northern Ridges, July 1993.
- Loddon Campaspe Regional Planning Authority Regional Design Guidelines, 1979.
- Gosford ID0 No. 122
- Gosford City Council Landscape and Vegetation Management Policy.
- Blue Mountains LEP 1991.
- Wollongong LEP 1990.
- Wollongong Environmental Lands "Fair Trading Policy on the the Illawarra Escarpment".
- Department of Local Government and Co-operatives - Draft Council Rating and Revenue Raising Manual, 1994.
- Armidale Water Supply and Sewerage Development Strategy Study (Final Draft), 1994, Montgomery Watson.

APPENDIX 1

Extract from Consultant Brief -Review of Environmental Protection Zone.

Objectives and Outputs for Consultancy

The objectives of the consultancy are:

- To review the current boundaries of the Environmental Protection zone lands in Armidale City, having regard to proposed boundaries in the Shire, water supply and scenic protection issues;
- Assessment of community benefit v's any identifiable and "unreasonable" cost to landowners of development restriction, given land values and in particular inherent servicing constraints on subdivision;
- Review of current Council rating policy for the zone in the light of the new Local Government Act in conjunction with the above;
- Review of current practice on such issues elsewhere in NSW;
- In light of the study, to review the environmental and economic appropriateness of current development controls for land identified as suitable for an Environmental Protection zoning and in particular what options and development controls may be appropriate to enable any closer settlement of the ridgetop areas;

Specific minimum outputs envisaged from the study are:

- Report outlining study investigations, findings and recommendations;
- Mapping of areas of the City where a continued Environmental Protection zoning is considered appropriate;
- Presentation of draft Development Controls for lands subject to such zoning, including but not limited to:
 - Subdivision entitlement;
 - Servicing standards and consideration of bushfire protection;
 - Landscaping and earthworks controls and performance guarantees;
 - Building controls including siting and materials;
 - Recommended objectives and provisions for the zone for inclusion in a review of Armidale LEP 1988.

City of Armidale - Environmental Protection Zone Review

APPENDIX 2

**Minutes of Landowners and Community
Representatives 1st March 1995**

**REVIEW OF ENVIRONMENTAL PROTECTION ZONING
ARMIDALE LOCAL ENVIRONMENTAL PLAN 1988**

**Public Meeting, 1 March 1995
Function Room, Armidale City Council**

Present: Steve Gow (Armidale City Council), Richard Bennett (Hilltop Planners), Kathy Martin (Planning Consultant), landowners, and development industry representatives.

ISSUES BY SECTOR

Landowners in each sector were asked to identify one issue which most concerned them.

(The number preceding each issue indicates the number of landowners who identified that particular issue).

South-East Sector

- *1 protection of the flora and fauna
- *1 the lack of a firm decision on the possible use of these areas leads to uncertainty by landowners as to what they can do eg. annual declaration for rates purposes whether rural producers .

North-East Sector

- *4 the rates are too high
- *4 services are either inadequate or unavailable
- *3 the zoning is inappropriate
- *2 a fear of possible encroachment by development into the area
- *2 uncertainty by landowners of what they can do in these areas
- *1 like to see the area maintained as it is
- *1 why develop?
- *1 the possible destruction of a large area of trees, especially along the creek (near Rockvale Road between Stony Ridge Road and Gordon Street) and the consequent possibility of erosion
- *1 protection of the flora and fauna
- *1 concerned with the skyline
- *1 general undesirability of building occurring on the hilltops, including hilltops opposite in the Shire

- *1 do not want the potential to develop to be lost - would like to develop
- *1 land was bought as an investment and concerned that values of land will drop
- *1 the cost to landowners of preserving these areas
- *1 how are the environmentally significant areas going to be identified
- *1 have two houses on the one block of land but understand that unable to subdivide
- *1 the potential hazard of the Council's water tanks on nearby house(s)
- *1 concerned about the possible resumption of land around the water tanks by Council

South-West Sector

- *1 rates are too high
- *1 zoning is inappropriate
- *1 inevitability of subdivision in the future - not sure whether desirable or not
- *1 would like to see opportunities for subdivision, but not similar to St Patrick's Estate
- *1 would like to develop

North-West Sector

- *1 would like to develop portion of land, near the water tanks

GENERAL ISSUES

- * Question the current location of the Environmental Protection zoning. Concern over zoning boundaries crossing properties. Should be based on contour lines.
- * Urban tree corridors should be established to preserve wildlife.
- * Not just hilltops need to be considered but existing areas of good vegetation.
- * There should be consistency between the City and Shire eg. corridors should link. Also some landowners' properties straddle the local government boundary (2 present at the meeting).

- * Proper management of these areas is required to deal with such issues as bushfire hazard, mistle-toe control, rabbit eradication, and consequences of agricultural practices (use of super-phosphate and effect on run-off; grazing and tree regeneration; dam construction and effect on natural drainage systems).
- * The cost of managing these areas effectively and who bears this cost.
- * The landowners who provide the benefit of a treed or rural backdrop to the community do not enjoy it but its preservation places a burden on them. Council should look after the areas rather than the landowners.
- * Problems with providing services, especially water and sewer. Septic should be acceptable.
- * A sustainable environment is possible - smaller lot sizes can result in greater tree cover and regeneration.

GOALS

- * Eucalypt regeneration on the ridges and skyline. Maintain existing old bushland. Probably some areas should not be developed. Existing trees are more valuable than new plantings - provide existing benefit visually and as habitat.
- * Promotion of flora and fauna corridors within residential areas.
- * A policy on ownership should be developed. Should be owned by Council.
- * Rates should be reduced to make money available for individual property owners to manage their land (eg. bushfire management, mistle-toe eradication). Current rate levels mean that there is pressure on landowners to use their land to generate income.
- * Development should be more sensitive to the area. Rather than minimum lot sizes specific constraints and criteria should be used to determine what can happen. Any guidelines should be strict and based on a long-term vision. There should be more flexibility on what can occur within the zoning. When controls apply should also be considered ie. at development or building application stage.
- * While smaller lot sizes, and therefore more buildings, may lead to more trees and retention of the visual significance of these areas, the smaller lot sizes and more buildings also threaten fauna and flora.

- * The value of the land is a reflection of the zoning and what is permitted within it. However, there is a speculative element incorporated into the value of the land because there is an expectation that the zoning will "crumble" as urban development extends towards these areas.
- * Armidale has a regional identity much of which is attributable to the exotic trees in the built-up areas and eucalypts on the periphery.
- * Development in the North-East sector should be restricted to avoid the erosion of the suburban identity that has occurred with more recent developments eg. colorbond fences along main thoroughfares.
- * The lifestyle in these areas is desirable. By permitting subdivision the opportunity to enjoy this lifestyle is made available to more residents and also provides a greater choice of housing.

City of Armidale - Environmental Protection Zone Review

APPENDIX 3

Blue Mountains LEP 1991 - Clauses 6, 10 and 34



LOCAL ENVIRONMENTAL PLANS

1991 & No. 4

GENERAL CONTROL OF DEVELOPMENT

6. ZONE OBJECTIVES

6.1 Zone: Rural Conservation (RC)

- (a) To ensure that development is compatible with the rural and natural landscape and heritage of the locality.
- (b) To avoid further fragmentation and loss of usable rural land; to encourage consolidation of small lots and resubdivision of existing holdings where the existing subdivision pattern is not appropriate or is unrelated to existing topography and natural constraints.
- (c) To retain the low density of rural settlement and ensure that development does not create unreasonable, uneconomic or environmentally damaging demands for the provision of services.
- (d) To maintain safety and convenience along main roads by discouraging uses that are likely to generate traffic volumes that disrupt traffic flow.
- (e) To avoid ribbon development.
- (f) To provide for the requirements of the rural community.

6.2 Zone: Bushland Conservation (BC)

- (a) To conserve the natural bushland character of the landscape surrounding the existing urban areas of the City and minimise the visual impact of development on the landscape, particularly when viewed from the Blue Mountains National Park.
- (b) To protect the natural bushland buffer zones between towns, to avoid ribbon development and to conserve and enhance the views and vistas of natural bushland obtained from the Great Western Highway and the Great Western Railway, public places, lookouts and areas within the Blue Mountains National Park.
- (c) To ensure that the form and siting of buildings, colours, landscaping and building materials are appropriate for, and harmonise with, the bushland character of the areas.
- (d) To provide only for development that utilises and retains the natural bushland on the site as an important feature of the development.
- (e) To ensure that development in bushfire prone areas is carried out so that effective bushfire management can be implemented within the property boundaries with appropriate environmental controls.
- (f) To encourage landscaping and regeneration of natural bushland in areas with sparse tree or canopy cover.

6.3 Zone: Residential Bushland Conservation (RES-BC)

- (a) To allow a range of residential types in the City subject to appropriate levels of servicing.
- (b) To ensure that residential development and subdivision is environmentally sensitive and site responsive.

- (c) To ensure that the form and siting of buildings, colours, landscaping and building materials are appropriate for and harmonise with the bushland character of the area.
- (d) To ensure that bushfire protection measures are contained within a perimeter road or property boundaries (and do not cause an adverse environmental impact on Water Supply Catchment Areas or an environmentally sensitive vegetation unit).
- (e) To encourage the re-establishment of bushland in areas of high visual significance, including escarpment areas. (In residential areas with sparse tree or canopy cover, to encourage landscaping and regeneration of natural bushland).
- (f) To ensure that non-residential land uses are compatible with the residential character of the area.

6.4 Zone: Residential Investigation (RES-I)

- (a) To identify land suitable for consideration by the Council for rezoning for future residential development and, in the case of Hawkesbury Road, Winmalee and Mort Street, Katoomba, for a range of urban uses.
- (b) To ensure that development within the zone is compatible with, and does not prejudice the anticipated future development of, the land.
- (c) To conserve the natural bushland character of the landscape surrounding the existing urban areas of the City.
- (d) To ensure that rezoning does not precede a detailed environmental investigation of a contiguous area zoned Residential Investigation shown edged on the Map.

6.5 Zone: Light Industrial (IND-LT)

- # (a) To provide for a range of light industrial land uses, compatible with the environment of the City.
- (b) To encourage employment opportunities.

6.6 Zone: Recreation (REC)

- (a) To provide for active recreational requirements of the City.
- (b) To ensure that recreational development is environmentally sensitive and site responsive.

6.7 Zone: Recreation - Environmental Protection (REC-EP)

- (a) To ensure protection of environmentally sensitive land and areas of high scenic value in the City.
- (b) To provide a buffer around areas of natural ecological significance.
- (c) To restrict development on land that is inappropriate by reason of physical characteristics or high bushfire hazard.
- (d) To encourage the restoration of disturbed bushland areas.

- (e) To provide for passive recreational activities that are compatible with the land's environmental characteristics.

6.8 Zone: Environmental Protection (EP)

- (a) To protect environmentally sensitive land and areas of high scenic value in the City from development.
- (b) To provide a buffer around areas of natural ecological significance.
- (c) To restrict development on land that is inappropriate by reason of physical characteristics or high bushfire hazard.
- (d) To encourage the restoration of disturbed bushland areas.

6.9 Zone: Environmental Protection - Acquisition (EPac)

- (a) To protect environmentally sensitive land and areas of high scenic value in the City from development.
- (b) To provide a buffer around areas of natural ecological significance.
- (c) To restrict development on land that is inappropriate by reason of physical characteristics or high bushfire hazard.
- (d) To encourage the restoration of disturbed bushland areas.
- (e) To provide for the acquisition of this land.

6.10 Zone: National Park (NP)

- (a) To maintain the spectacular natural environment of the Blue Mountains.
- (b) To facilitate the management of the Blue Mountains National Park in accordance with the National Parks and Wildlife Act 1974 and the Blue Mountains National Park Plan of Management.

6.11 Zone: Regional Open Space (R)

- (a) To enhance and protect the unique natural and scenic environment of the Blue Mountains.
- (b) To provide greater opportunities for passive recreation in the Blue Mountains.
- (c) To provide for acquisition of this land.

DEVELOPMENT CRITERIA

10. DEVELOPMENT CRITERIA - GENERAL

10.1 Any Development

Even where the consent of the Council is not required for development, where relevant to development the criteria in Clauses 10 and 11 apply.

10.2 Access

- (a) The Council shall not consent to development which requires vehicular access unless an all-weather vehicular access road leading up to the boundary of the land on which development is to take place from outside that land is provided to a standard satisfactory to the Council. In order to prevent erosion, no such access road shall be permitted on slopes of 33% or greater.
- (b) The Council shall not consent to development which requires an on-site access road unless such a road is designed and constructed to minimise grades, to suit contours, and to be stable, taking into account the characteristics of the site and the locality, and should avoid slopes of 33% or greater.
- (c) The Council shall not consent to development for the purposes of any additional vehicular access, or if there is no vehicular access, to more than one vehicular access, to land fronting a Classified Road, nor shall any existing vehicular access be relocated without the consent of the Council.

10.3 Building Setback

- (a) The Council shall not consent to development for the purposes of a building on land adjoining a Classified Road, unless the setback of the building from the alignment or Proposed New Alignment of the Classified Road is, for a site within the -

| | |
|--|------------|
| Rural Conservation or Bushland Conservation Zone | 30 metres |
| Other Zone | 18 metres |
| Protected Area - Land Between Towns (except dwelling house) | 100 metres |

- (b) Variation

The Council may reduce the building setback where it is satisfied that -

- (i) the exceptional physical characteristics of the site make it necessary to do so; and
- (ii) no traffic hazard, ribbon development or adverse visual impact will, or is likely to, occur.

10.4 Design and Character

- (a) The Council shall not consent to development for the purposes of a building in the Rural Conservation or Bushland Conservation zone unless it is to be below the skyline when viewed from a public place or unless the Council is satisfied that no alternative location for the building is available on the lot.

- (b) The Council shall not consent to development for the purposes of a building unless the building form, its siting, the colours of the exterior surface of the building, its landscaping and the building materials used are appropriate for the characteristics of the site and the locality, and consistent with any Environmental Design and Management Guidelines for the building or its site.
- (c) The Council shall not consent to development unless landscaping is to be retained or provided to the Council's satisfaction so as to reduce its visual impact, particularly when viewed from a public place. In the Rural Conservation and Bushland Conservation zone where landscaping is to be provided species characteristic of the locality shall be used.
- (d) The Council shall not consent to development on land adjacent to land within the Regional Open Space zone, unless it has had particular regard to the impact of that development on the aesthetic, historical, natural and scientific attributes of the land within the Regional Open Space zone.

10.5 Environmental Impact

- (a) The Council shall not consent to development unless the development -
 - (i) incorporates measures specified in accordance with any Development Control Plan that shows requirements for erosion and sedimentation control, and
 - (ii) avoids unnecessary clearing of indigenous plants, and
 - (iii) minimises site disturbance and soil erosion, and
 - (iv) where the development is for the purposes of a dwelling, minimises "cut" or "fill" or both as far as is practical and contains such "cut" or "fill" or both within the dwelling where conditions allow.
- (b) Where land on which development is proposed has been cleared, the Council shall not consent to development unless it is to take place as far as is practicable within the cleared area.
- (c) The Council shall not consent to development unless the development incorporates effective measures, within the boundaries of the site and satisfactory to the Council, to protect the development from bush fire.
- (d) The Council shall not consent to development unless the development incorporates effective measures, satisfactory to the Council, to ensure that no significant adverse environmental impact occurs in respect of:
 - (i) any environmentally sensitive vegetation unit (as listed in Schedule 3); and
 - (ii) any rare or endangered species of flora and fauna or its habitat and any unusual plant community; and
 - (iii) any open forest community and any tall open forest community dominated by *Eucalyptus oreades* (Blue Mountains Ash) and the associated understorey shrub and herb layers of that community; and
 - (iv) any open forest community and any tall open forest community dominated by *Eucalyptus deanei* (Round leaved Gum or Deane's Gum) and the associated understorey shrub and herb layers of that community; and

- (v) the hydrological aspect of the locality; and
 - (vi) any lake, lagoon, perennial and non-perennial watercourse; and
 - (vii) any significant natural feature, including any rock outcrops, rock ledges and cliffs.
- (e) Land which is steeper than 33% (1 in 3) shall for the purpose of this Plan be deemed to be a Protected Area - Environmental Constraint Area.
 - (f) The Council shall, when considering an application to carry out development on land in the Residential Bushland Conservation zone which is adjacent to land within the National Park zone, make an assessment of the impact of that development on the aesthetic, historical, natural, scenic and scientific attributes of the land within the National Park zone.

10.6 Height of Buildings

- (a) The Council shall not consent to development for the purpose of a building which exceeds two storeys.
- (b) The Council shall not consent to development for the purpose of a building which exceeds 8 metres in height above natural ground level at any point measured to the highest point of the roof.
- (c) The Council shall not consent to development for the purpose of a building the maximum height of which, when measured at the eaves, gutter line or any equivalent building element to a point on the finished ground level immediately below, exceeds 6.5 metres.

10.7 Heritage

The Council shall not grant consent to any development unless it has made an assessment of the impact of the proposed development on -

- (a) the heritage significance of the site; and
- (b) the heritage significance of any site in the immediate locality which, in the opinion of the Council, may be affected.

10.8 Services

- (a) The Council shall not consent to development unless it is satisfied that adequate arrangements can be made for drainage, the provision of power supply, water supply or water storage, and the disposal of effluent. The Council shall take account of the requirements of the Water Board where the area is serviced by the Board.
- (b) The Council shall not consent to subdivision of land to create additional lots in the Rural Conservation, Bushland Conservation or Residential Bushland Conservation zone unless it is in accordance with any Development Control Plan which incorporates strategies for social infrastructure and for the use of existing community facilities and services in the locality.
- (c) Clauses 10.8(d), (e), (f), (g) and (h) do not apply to land within a Protected Area - Water Supply Catchment Area.

- (d) Where a development application is for consent to-
- (i) subdivision; or
 - (ii) other development which the Council has been required by the Water Board to refer to the Board,

the Council shall-

- (iii) where on-site disposal of effluent is proposed, require the applicant to furnish a geotechnical and water balance report to establish that the land is capable of such disposal; and
 - (iv) include in any development consent a provision which requires that satisfactory arrangements be made with the Water Board for the provision of water and sewerage facilities.
- (e) The Council shall not consent to the subdivision of land to create additional lots or to the carrying out of development the Council considers is significant in the Residential Bushland Conservation zone unless -
- (i) each of the lots to be created which will require effluent disposal or the site on which the development will be carried out is to be serviced by a reticulated sewerage system; and
 - (ii) the Water Board has previously provided certification to the Council that the sewage treatment plant serving the area concerned has the capacity to accommodate the additional development.
- (f) The Council shall not consent to any development that requires effluent disposal, unless -
- (i) the development is to be connected to a reticulated sewerage system; or
 - (ii) the Council is satisfied by means of a geotechnical and water balance report that the effluent may be effectively disposed of on that part of the site on which the development is permissible.

This paragraph does not apply to subdivision of land in the Residential Bushland Conservation zone.

- (g) The Council may grant development consent for the erection of a dwelling house served by an effluent pump out system on a lot existing at the appointed day where the sewer is not available. This provision does not extend to dual occupancy.
- (h) For the purpose of this clause, "geotechnical and water balance report" means a report which contains sufficient technical data to meet the requirements specified in any Development Control Plan that shows guidelines for the disposal of waste waters by land application, that includes consideration of -
- (i) the waste water treatment system; and
 - (ii) site selection criteria;

and that demonstrates that the development site is capable of the disposal of effluent without adversely affecting bushland, watercourses, ground water, adjacent land, or environmentally sensitive areas.

10.9 Site Coverage

The Council shall not consent to development in Rural Conservation, Bushland Conservation, Residential Bushland Conservation and Residential Investigation zones, if the maximum site cover of any building that will result from carrying out the development, including any ancillary building to the main building, will exceed the following:

| Usable Land Area | Maximum Site Cover |
|---|---|
| Less than 1,000 m ² | 25% of the site area or 160 m ² whichever is the greater |
| 1,000 m ² or more but less than 3,000 m ² | 300 m ² |
| 3,000 m ² or more but less than 4,000 m ² | 350 m ² |
| More than 4,000 m ² | A Principal Development Area |

10.10 Storage, Sale or Display of Goods

- (a) The storage, sale or display of goods is prohibited:
- (i) except at or from roadside stalls, between a road alignment and the principal building on a lot; or
 - (ii) on or in a road; or
 - (iii) except at or from roadside stalls, on a lot with frontage to a road where there is no building on that lot or where the building is only of a minor character.
- (b) On a Classified Road, the storage, sale or display of goods is prohibited:
- (i) between a road alignment and the principal building on a lot; or
 - (ii) on or in the road; or
 - (iii) on a lot with frontage to the road where there is no building on that lot or where the building is only of a minor character.

10.11 Tree Preservation

- (a) In this clause, "tree" means:
- (i) a living perennial plant with one or more self supporting trunks, any one or more of which has a girth of more than 0.45 m (at a height of 1 metre above the ground) or has a height of more than 3.6 metres, or a branch spread of more than 3 metres; or
 - (ii) any tree or plant, irrespective of size, listed in a register of significant trees, being a register kept at the office of the Council; or
 - (iii) any hedge on a street frontage having a height of more than 1.2 metres.
- (b) A person shall not, except with the consent of the Council, ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree.

- (c) The consent of the Council is not required:
 - (i) for the pruning of any tree for the purpose of its regeneration or shaping; or
 - (ii) where the action proposed with respect to the tree is necessary to prevent imminent personal injury or imminent damage to property; or
 - (iii) where the tree has otherwise become dangerous, but only if 7 days' notice of the action proposed with respect to the tree has been given to the Council; or
 - (iv) for the removal of noxious plants.
- (d) This clause does not apply to trees in a State forest or on a timber reserve under the Forestry Act 1916 or to anything required to be done by the Electricity (Overhead Line Safety) Regulation 1991.

11. DEVELOPMENT CRITERIA - PROTECTED AREAS

11.1 General

In addition to the provisions of Clause 10, the following criteria apply in the "Protected Areas" designated on the Map.

11.2 Canopy Conservation

The Council shall not consent to any development involving the clearing of trees in an area designated as Protected Area - Canopy Conservation, unless it is satisfied, by means of an assessment of the landscape and environmental impact of the proposed development, that the visual and ecological effects of the proposed clearing will not compromise the objectives for the Canopy Conservation Protected Area.

11.3 Environmental Constraint Area

The Council shall not consent to development in a Protected Area - Environmental Constraint Area, unless it is satisfied, by means of a detailed environmental assessment, that the development will not compromise the objectives of the Protected Area and will comply with the Development Criteria in Clause 10.

11.4 Escarpment Area

- *(a) The Council shall not consent to any development involving the clearing of vegetation in an area designated as Protected Area - Escarpment Area, unless it is satisfied, by means of an assessment of the landscape and environmental impact of the proposed development, that the visual and ecological effects of the proposed clearing will not compromise the Protected Area - Escarpment Area objectives.
- (b) No building, other than of single storey construction, shall be erected in a Protected Area - Escarpment Area if it protrudes above the vegetation canopy of the immediate locality, or the height of adjacent buildings.

11.5 Land Between Towns

- (a) In Protected Area - Land Between Towns, development is prohibited unless it is screened from view from any public place to the satisfaction of the Council by the retention of existing vegetation or by planting indigenous vegetation.
- (b) Subdivision of land fronting a Classified Road is prohibited unless all of the proposed lots have a single point of vehicular access to the Classified Road, whether such access is by way of a public road or otherwise.

11.6 Water Supply Catchment Area

- (a) The Council shall refer any development application for land within a Protected Area - Water Supply Catchment Area to the Water Board and shall include in any determination in respect of that application any written requirements of the Board relating to the development received by the Council. Any development consent must include a provision which requires that satisfactory arrangements be made with the Water Board for the provision of water and sewerage facilities.
- (b) Within a Protected Area - Water Supply Catchment Area, the Council shall not consent to any development that requires effluent disposal unless the development is to be connected to a reticulated sewerage system.
- (c) The Council may grant development consent for the erection of a dwelling house served by an effluent pump out system on a lot that existed at the appointed day where the sewer is not available. This provision does not extend to dual occupancy.

34. SUBDIVISION

34.1 The Density Control Provision shown on the Map indicates the maximum number of lots per hectare into which a lot existing at the appointed day can be subdivided with the consent of the Council. Any subdivision which would result in the Density Control Provision for the lot existing at the appointed day being exceeded, is prohibited. The Density Control Provision shall be calculated on the usable land area.

34.2 Rural Conservation Zone - Special Provisions

(a) Subdivision of land in the Rural Conservation Zone is prohibited except -

- (i) for boundary adjustment which is permitted only if no additional lots are created; or
- (ii) in Mt. Irvine, Mt. Tomah, Mt. Wilson and Berambing where the Council may consent to subdivision to create an additional lot from a lot existing at the appointed day, provided that the existing lot has an area of at least 20 hectares; or
- (iii) where the only purpose of the subdivision is to provide land for public purposes; or
- (iv) for a lot (other than a lot the whole or part of which is in the Escarpment Area or Land Between Towns) affected by split zoning, where the Council may consent to subdivision only if all the land within each zone shown on the Map as affecting the lot, excluding the Environmental Protection zone, will be wholly contained within one of the lots resulting from the subdivision.

A lot (other than a lot the whole or part of which is in the Escarpment Area or Land Between Towns) affected by split zoning is a lot which consists partly of land zoned Rural Conservation, Bushland Conservation (No Subdivision), Residential Bushland Conservation (No Subdivision), Residential Investigation or Residential 2(a1) under Blue Mountains Local Environmental Plan No. 4 and part or all of the residue of which is within any one or more other of those zones.

(b) In any subdivision permitted under clause 34.2(a)(i), (ii) and (iv), each lot in the Rural Conservation zone created by the subdivision shall have a minimum area of -

- (i) 1 hectare for land in Mt. Irvine, Mt. Tomah, Mt. Wilson, Berambing and Megalong Valley, or
- (ii) 5,000 m² elsewhere.

34.3 Bushland Conservation Zone - Special Provisions

(a) Subdivision of land shown BC (NS), BC (CONS) or BC with a Minimum Area Requirement on the Map is prohibited except -

- (i) for boundary adjustments, which are permitted only if no additional lots are created and each resulting lot has an area of at least 5,000 m² zoned Bushland Conservation that includes a Principal Development Area; or

(Amendment No. 1, 28/3/93)

- (ii) where the only purpose of the subdivision is to provide land for public purposes; or
- (iii) for a lot (other than a lot the whole of part of which is in the Escarpment Area or Land Between Towns) affected by split zoning, where the Council may consent to subdivision only if all land within each zone shown on the Map as affecting the lot, excluding the Environmental Protection zone, is wholly contained within one of the lots resulting from the subdivision.

A lot (other than a lot the whole or part of which is in the Escarpment Area or Land Between Towns) affected by split zoning is a lot which consists partly of land zoned Rural Conservation, Bushland Conservation (No Subdivision), Residential Bushland Conservation (No Subdivision), Residential Investigation or Residential 2(a1) under Blue Mountains Local Environmental Plan No. 4 and part or all of the residue of which is within any one or more other of those zones.

- (b) Where a Density Control Provision is shown on the Map, subdivision of the land to a density exceeding that shown is prohibited. Each resulting lot shall have an area of at least 5,000 m² zoned Bushland Conservation that includes a Principal Development Area.

34.4 Residential Bushland Conservation Zone - Special Provisions

- # (a) Subdivision of land shown RES-BC (NS), RES-BC (CONS) or RES-BC with a Minimum Area Requirement on the Map is prohibited except -
 - (i) for boundary adjustment which is permitted only if no additional lots are created; or
 - (ii) where the only purpose of the subdivision is to provide land for public purposes; or
 - #(iii) for a lot (other than a lot the whole or part of which is in the Escarpment Area or Land Between Towns) affected by split zoning, where the Council may consent to subdivision only if all land within each zone shown on the Map as affecting the lot, excluding the Environmental Protection zone, is wholly contained within one of the lots resulting from the subdivision.

A lot (other than a lot the whole or part of which is in the Escarpment Area or Land Between Towns) affected by split zoning is a lot which consists partly of land zoned Rural Conservation, Bushland Conservation (No Subdivision), Residential Bushland Conservation (No Subdivision), Residential Investigation or Residential 2(a1) under Blue Mountains Local Environmental Plan No. 4 and part or all of the residue of which is within any one or more other of those zones.

- (b) Where a Density Control Provision is shown on the Map, subdivision of the land to a density exceeding that shown is prohibited.

34.5 Residential Investigation Zone - Special Provisions

(a) Subdivision of land shown RES-I on the Map is prohibited except -

- (i) for boundary adjustment which is permitted only if no additional lots are created; or
- (ii) where the only purpose of the subdivision is to provide land for public purposes; or
- (iii) for a lot (other than a lot the whole or part of which is in the Escarpment Area or Land Between Towns) affected by split zoning, where the Council may consent to subdivision only if all the land within each zone shown on the Map as affecting the lot, excluding the Environmental Protection zone, will be wholly contained within one of the lots resulting from the subdivision.

A lot (other than a lot the whole or part of which is in the Escarpment Area or Land Between Towns) affected by split zoning is a lot which consists partly of land zoned Rural Conservation, Bushland Conservation (No Subdivision), Residential Bushland Conservation (No Subdivision), Residential Investigation or Residential 2(a1) under Blue Mountains Local Environmental Plan No. 4 and part or all of the residue of which is within any one or more other of those zones.

34.6 Light Industrial Zone - Special Provisions

The Council may consent to subdivision of land within the Light Industrial zone only if all lots are connected to a reticulated sewer.

34.7 Recreation Zone - Special Provisions

The Council shall not consent to subdivision of land within the Recreation zone unless the only purpose of the subdivision is to provide land for public purposes.

34.8 Recreation - Environmental Protection Zone - Special Provisions

The Council shall not consent to subdivision of land within the Recreation - Environmental Protection zone unless the only purpose of the subdivision is to provide land for public purposes.

34.9 Environmental Protection Zone - Special Provisions

The Council shall not consent to subdivision where any lot created consists entirely of land within the Environmental Protection zone unless the only purpose of the subdivision is to provide land for public purposes.

34.10 Environmental Protection - Acquisition Zone - Special Provisions

The Council shall not consent to subdivision of land within the Environmental Protection - Acquisition zone unless the only purpose of the subdivision is to provide land for public purposes.

34.11 Regional Open Space Zone - Special Provisions

The Council shall not consent to the subdivision of land within the Regional Open Space zone unless the subdivision is for the purpose of boundary adjustment.

City of Armidale - Environmental Protection Zone Review

APPENDIX 4

Gosford IDO No. 122 - Clause 18

CITY OF GOSFORD

INTERIM DEVELOPMENT ORDER NO. 122

GAZETTED 30TH MARCH, 1979

Subdivision.

New clause

G.G. 18. (1) This clause applies to land within Zone No. 1(a),
20.11.81 1(b), 1(c), 1(d), 7(a), 7(b), 7(c2), 7(c3), 7(c4), 7(c5),
Amended 7(d) or 7(e).

(2) A person shall not subdivide land to which this clause applies except in accordance with this clause.

(3) Except as provided in subclauses (4) and (5), a person shall not subdivide land to which this clause applies so as to create an allotment having an area of less than -

Amended
G.G.
6.5.83

- (a) in the case of land within Zone No. 1(c), 1(d), 7(a), 7(c4), 7(d) or 7(e) - 40 hectares;
- (b) in the case of land within Zone No. 1(a) or 7(b) - 20 hectares;
- (c) in the case of land within Zone No. 1(b) - 10 hectares;
- (d) in the case of land within Zone No. 7(c3) or 7(c5) - 4 hectares; or
- (e) in the case of land within Zone No. 7(c2) - 2 hectares.

(4) A person may, with the consent of the Council -

- (a) subdivide land to which this clause applies, subject to clause 19(3) where -
 - (i) the land is partly within one zone and partly within another zone;
 - (ii) the area of the land within one of the zones is not less than the area specified in subclause (3) in respect of that zone;
 - (iii) the area of the land in the other zone is less than the area specified in subclause (3) in respect of that zone; and

- (iv) one of the allotments to be created by the subdivision comprises the whole of the land referred to in subparagraph (iii); or
- (b) subdivide land within Zone No. 7(c2) so as to create one or more allotments having an area of less than 2 hectares but not less than 1 hectare where -
 - (i) the person agrees with the Council to dedicate to it as a public reserve land within Zone No. 6(d), 6(e), or 7(a) which is in the same ownership as the land within Zone No. 7(c2);
 - (ii) the person agrees to contribute to the Council an amount of money to be used by the Council for the purchase for use as a public reserve of land within Zone No. 7(a) or for the improvement or embellishment of any public reserve owned by the Council which is within Zone No. 7(a) or which was formerly within Zone No. 7(a) under this Order;
 - (iii) the plan of subdivision is a strata plan within the meaning of the Strata Titles Act, 1973, which includes as common property land within Zone No. 7(a) which adjoins land within Zone No. 7(c2) and that part of the common property is accessible from each of the lots in the strata plan;
 - (iv) the person agrees to dedicate land within Zone No. 6(d), 6(e) or 7(a) in accordance with subparagraph (i) and to make a contribution in accordance with subparagraph (ii); or
 - (v) the person agrees to make a contribution in accordance with subparagraph (ii) and to include land in common property in accordance with subparagraph (iii).

(5) The total number of allotments that may be created in accordance with subclause (4)(b), whether by one or more subdivisions made at any time either before or after the appointed day, shall not exceed -

- (a) where a person agrees to dedicate land within Zone No. 6(d), 6(e) or 7(a) in accordance with subclause (4)(b)(i) or includes land within Zone No. 7(a) in common property in accordance with subclause (4)(b)(iii), a number equal to the sum of the number obtained -
 - (i) by dividing the area of the land within Zone No. 7(c2), expressed in hectares, by 2; and

Amended
G.G.
6.5.83

- (ii) by dividing the area, expressed in hectares, of the land within Zone No. 7(a) to be dedicated or included in common property by 5,

calculated to the nearest whole number.

- (b) where a person agrees to make a contribution in accordance with subclause (4)(b)(ii), a number equal to the sum of the numbers obtained -

- (i) by dividing the area of the land within Zone No. 7(c2), expressed in hectares, by 2,
- (ii) by dividing the amount of the contribution by 5 times the value of 1 hectare of land within Zone No. 7(a), as determined from time to time by agreement between the Council and the Director, or, if no such agreement is reached, as determined by the Director,

calculated to the nearest whole number; or

- (c) where a person agrees -

- (i) to dedicate land within Zone No. 6(d), 6(e) or 7(a) in accordance with subclause (4)(b)(i); or
- (ii) to include land within Zone No. 7(a) in common property in accordance with subclause (4)(b)(iii); and
- (iii) to make a contribution in accordance with subclause (4)(b)(ii),

a number equal to the sum of the numbers calculated -

- (iv) by dividing the area of the land within Zone No. 7(c2) (if any) by 2; and
- (v) by adding thereto the numbers obtained by making calculations in accordance with paragraph (a)(ii) in respect of that part of the land agreed to be dedicated and paragraph (b)(ii) in respect of the agreed amount of the contribution,

calculated to the nearest whole number.

(6) Land within Zone No. 7(a) included in common property pursuant to subclause (4)(b)(iii) shall not be used for any purpose other than agriculture, parks or gardens and shall not be so used without the consent of the Council.

(7) The Council shall upon the receipt by it of a contribution made pursuant to this clause place that contribution in a trust account for use for the purpose specified in subclause (4)(b)(ii).

(8) A reference in this clause to Zone No. 6(e) shall be taken to be a reference to that zone in the Gosford Planning Scheme Ordinance.

APPENDIX 5

Wollongong DCP No. 46 - Fair Trading
on the Illawarra Escarpment.

WOLLONGONG DEVELOPMENT CONTROL PLAN N^o 46

FAIR TRADING ON THE ILLAWARRA ESCARPMENT

CITATION

- 1 This Plan may be cited as "Wollongong Development Control Plan N^o 46 - Fair Trading" on the Illawarra Escarpment.

LAND TO WHICH THE PLAN APPLIES

- 2 This Plan applies to land situated in the City of Wollongong being land edged heavy black and designated 7(a), 7(b)i and 7(b)ii on the map marked Wollongong Development Control Plan N^o 46 - Fair Trading on the Illawarra Escarpment.

ENVIRONMENTAL PLANNING INSTRUMENTS APPLYING TO THE LAND DESCRIBED IN CLAUSE 2

- 3 City of Wollongong Local Environmental Plan 1990.

AIMS AND OBJECTIVES

- 4 The aim of this Plan is to:-
 - a) facilitate the acquisition of Escarpment Core Area land;
 - b) identify within the Escarpment Fringe, areas where development entitlements granted through Fair Trading may be accommodated; and
 - c) implement appropriate controls to ensure that development carried out as a result of Fair Trading does not have an adverse impact upon the adjacent Escarpment Core Area.

DEVELOPMENT CONTROLS

- 5 For the purpose of this Plan land along the Escarpment has been included in either the Escarpment Core Area or the Escarpment Fringe Area.

Land in the Escarpment Core Area is zoned 7(a) in Wollongong Local Environmental Plan 1990 (Amendment N^o 38) to provide the greatest level of protection for land which is recognised as having the highest scenic, landscape and environmental value.

Land in the Escarpment Fringe Area is zoned 7(b) in Wollongong Local Environmental Plan 1990 and for the purpose of this Plan, this land has been included in one of two categories, either 7(b)i or 7(b)ii to indicate its conservation value and relative significance to the adjacent Escarpment Core Area.

The 7(b)i classification under this Plan applies to land which has a high conservation value and is unsuitable for development. It is visually prominent and/or substantially treed by mature or semi-mature forest and for the most part sits adjacent to the Escarpment Core Area.

Apart from the modest upgrading of existing buildings and uses and provided that such upgrading does not involve tree clearing, further development in the 7(b)i area is precluded.

The 7(b)ii classification under this Plan applies to land which has less conservation significance, is partially cleared or developed and used for agriculture or other activities

- 6 Council has adopted a policy called Fair Trading whereby a landowner may wish to negotiate additional development entitlements in exchange for the transfer of Escarpment Core Area land.

Fair Trading applies only to the transfer of land which is designated 7(a) on the attached map and only if suitable sites for additional development entitlements are available within the 7(b)ii area.

- 7 The granting of additional dwelling entitlements under "fair trading" principles will depend on the following factors:

- how much 7(a) land is being put into public ownership and the quality of that land;
- whether the 7(b)ii land can accommodate additional development (access, bushfire hazard, geotechnical considerations);
- whether additional development will have a significance impact on the environment (visual impact, environmental impact through clearing for access, buildings and bush fire protection);
- whether the landowner has or is willing to undertake environmental improvements such as tree planting and land stabilisation; and
- detailed planning studies to support development.

SAVINGS

- 8 Where it can be demonstrated that the objectives set out in Clause 4 will be satisfied by a particular development, Council may relax the requirements of this Plan.





In particular, Council may consider the transfer of 7(b)i land under Fair Trading but only where it can be demonstrated that this land has the special qualities appropriate for inclusion in the Escarpment Core Area.

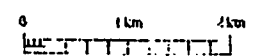
ADOPTED: 8 September 1994
EFFECTIVE: 14 September, 1994



CITY OF
WOLLONGONG
PLANNING DIVISION

DCP NO. 46
FAIR TRADING
ON THE
ILLAWARRA
ESCARPMENT

-  ESCARPMENT CORE AREA
-  ESCARPMENT FRINGE AREA
-  7bi HIGHER CONSERVATION VALUE
-  7bii LOWER CONSERVATION VALUE



SCALE 1:50000







ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979
CITY OF WOLLONGONG
DEVELOPMENT CONTROL PLAN NO. 46

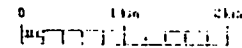
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| EFFECTIVE DATE 31/03/84 | APPROVED BY C. HADGAS DATE 11/5/81 |



CITY OF
WOLLONGONG
PLANNING DIVISION

DCP NO. 46
FAIR TRADING
ON THE
ILLAWARRA
ESCARPMENT

-  ESCARPMENT CORE AREA
-  ESCARPMENT FRINGE AREA
-  76i HIGHER CONSERVATION VALUE
-  76ii LOWER CONSERVATION VALUE



SCALE 1:5000

ENVIRONMENTAL PLANNING ACT 1979
CITY OF WOLLONGONG
DEVELOPMENT CONTROL PLAN NO. 46





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| EFFECTIVE DATE: 31 AUG 94 | TESTING & |

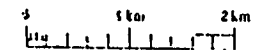




CITY OF
WOLLONGONG
PLANNING DIVISION

DCP NO. 46
FAIR TRADING
ON THE
ILLAWARRA
ESCARPMENT

-  ESCARPMENT CORE AREA
-  ESCARPMENT FRINGE AREA
-  7bi HIGHER CONSERVATION VALUE
-  7bii LOWER CONSERVATION VALUE

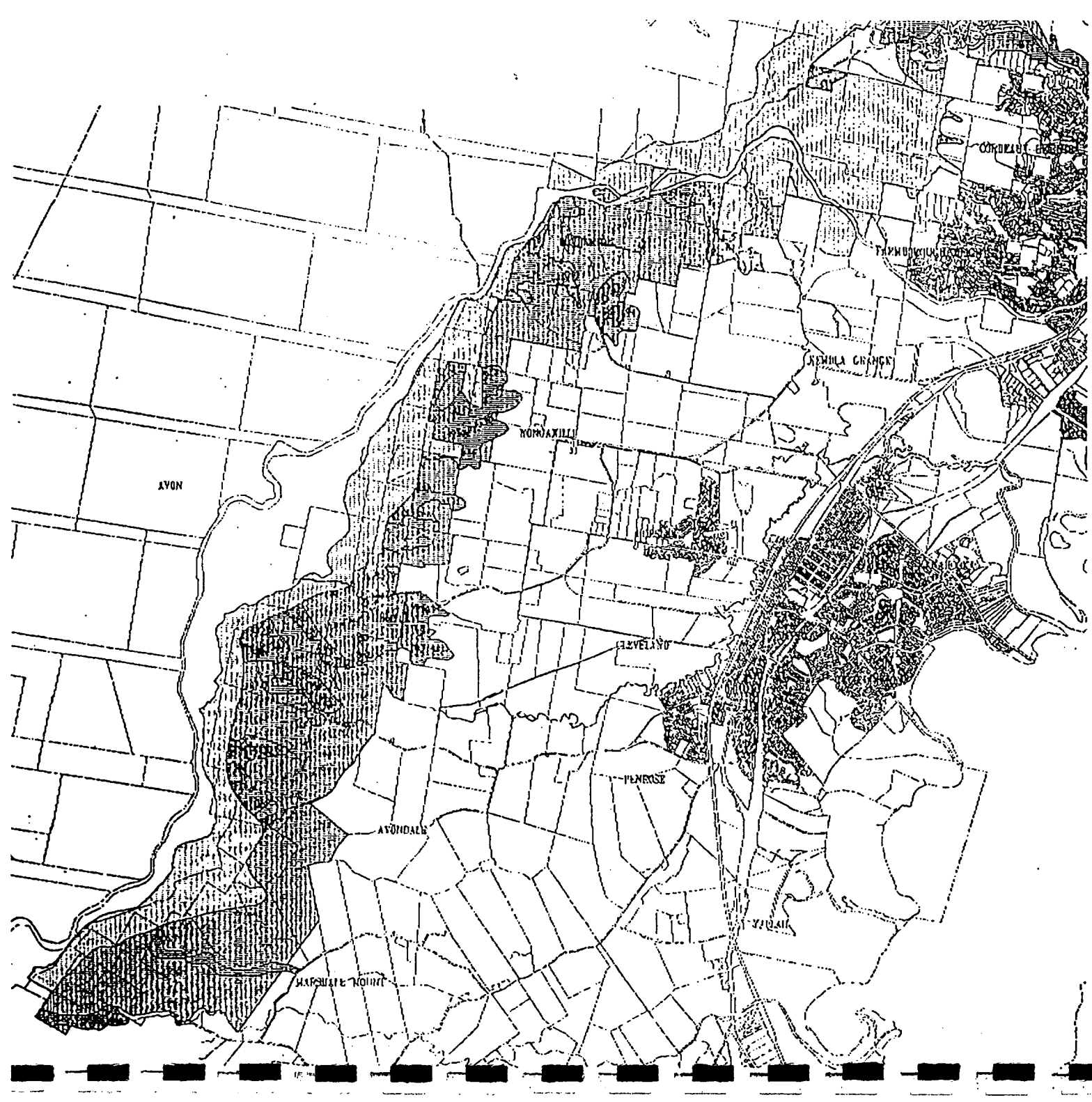


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ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1973
CITY OF WOLLONGONG
DEVELOPMENT CONTROL PLAN NO. 46

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| DRAWN BY C. VANDER | DATE 11-8-78 | STATUS OF RELATIONSHIP WITH OTHER PLANS |
| SUPERSEDED | N. MCARD | THIS IS A SUPPLEMENT |
| REPLACES | L. PAVAN | CITY OF WOLLONGONG |
| ORIG. PLAN NO. | 1307/78 | LOCAL ENVIRONMENTAL PLAN 1154 |

| | | | |
|----------------|------------|-------------|-------------|
| EFFECTIVE DATE | 31 JULY 94 | APPROVED BY | [Signature] |
| DATE OF REVIEW | 31 JULY 94 | APPROVED BY | [Signature] |



City of Armidale - Environmental Protection Zone Review

APPENDIX 6

City of Armidale - Draft Design and
Siting Guidelines:
Scenic Protection Areas

CITY OF ARMIDALE
DEVELOPMENT GUIDELINES
SCENIC PROTECTION AREAS
SUBDIVISION PRINCIPLES
AND
HOUSE SITING AND DESIGN

DRAFT

1.0 INTRODUCTION

These guidelines provide direction in assisting with the design of subdivisions within the City's Scenic Protection Areas which have been identified as having the potential to accommodate closer settlement. The guidelines will also assist in the siting, orientation and design of new dwellings and outbuildings proposed to be erected within the Scenic Protection Area.

2.0 SITE ANALYSIS

Good subdivision design requires firstly a sensitive understanding of the natural characteristics of a site, and then the application of this knowledge to produce an attractive and functional layout in harmony with the natural characteristics and be in sympathy with neighbouring land use (Figure 1).

The first steps, known generally as site analysis, includes the following:

- Initial discussions with Council Officers (as appropriate) to discuss statutory requirements and to agree on the analysis procedures.
- Base maps: obtain or prepare a topographic base map showing contours, watercourses and swamps, areas of vegetation, rock outcrops or escarpments, existing roads, dams and buildings.
- Existing conditions: definition on the base map of existing crown boundaries, easements, unmade roads and existing fences, areas affected by specific planning or other controls.
- Site constraints: map areas of high erosion hazard, flooding, high quality agricultural land, fire hazard areas etc. In some cases a detailed survey of the soil and bedrock of a site may be required in order to assess engineering waste disposal suitability or erosion potential.
- Visual features: map the directions of good and poor views out of, into and within the site. This should include the potential views of neighbours since overlooking may be a problem. Ridgelines, attractive stands of vegetation or rock outcrops should be plotted where visually significant.
- Local climate: information should be obtained and recorded on rainfall and temperature averages and variations, directions of predominant summer and winter winds, the location of frost hollows etc.

- Utility services: location of existing services should be plotted and consideration given to location of future services. Electricity, telephone and water supply and possibly sewerage will be required. In areas where dams may be required it is useful to identify potential dam sites.
- Facilities: shops, schools, fire brigades and similar facilities should be identified relative to the site. School bus routes or mail delivery routes may also be significant.
- Access: the location of existing roads and future roads or widening should be plotted.

With all this information to hand, consideration can then be given to the detailed design of the subdivision. Further discussions should be held with Council Officers at this stage to discuss the conclusions of the site analysis process and to determine the particular requirements of the Council. Invariably the basic form of the subdivision will derive simply and logically from bringing together the constraints and opportunities of the analysis work.

3.0 SUBDIVISION LAYOUT

Good subdivision is site responsive. A rigid rectangular pattern of lots should not be imposed onto the site, rather, an appropriate layout should be suggested by the natural features and topography. Using the site analysis principles, the subdivision should be designed to take advantage of the assets and avoid the problems of the site. Examples of both good and bad subdivision are included as Figure 2.

The likely purchasers of the lots and the users they may wish to make of the land should be considered to help determine the most suitable size and type of lots (subject to Council requirements). The greater the care taken in planning a rural subdivision, the more successful it is likely to be in terms of ease of sale and prices obtained.

Some basic design principles are:

Roads

- Should follow contours or run gently across slopes. Steep slopes, drainage lines and areas requiring extensive cut and fill should be avoided.
- Should not dam gullies or streams.
- Avoid long dead-end roads which may become fire traps; an alternative entry/exit will be needed if such roads are planned.
- Ensure that roads provide adequate access to each site.

When building roads, stabilise slopes and banks, top-dress these where needed and plant grass and suitable trees.

Lots

- Should be of a size and shape to accommodate the proposed use with sufficient room to accommodate a dwelling envelope so as to provide side boundary setbacks of at least 10 metres.
- The shape of lots should be simple, and boundaries related to physical features such as ridges and streams.

UNSATISFACTORY LAYOUT

44 LOT SUB-DIVISION (10 HECTARE SITE)

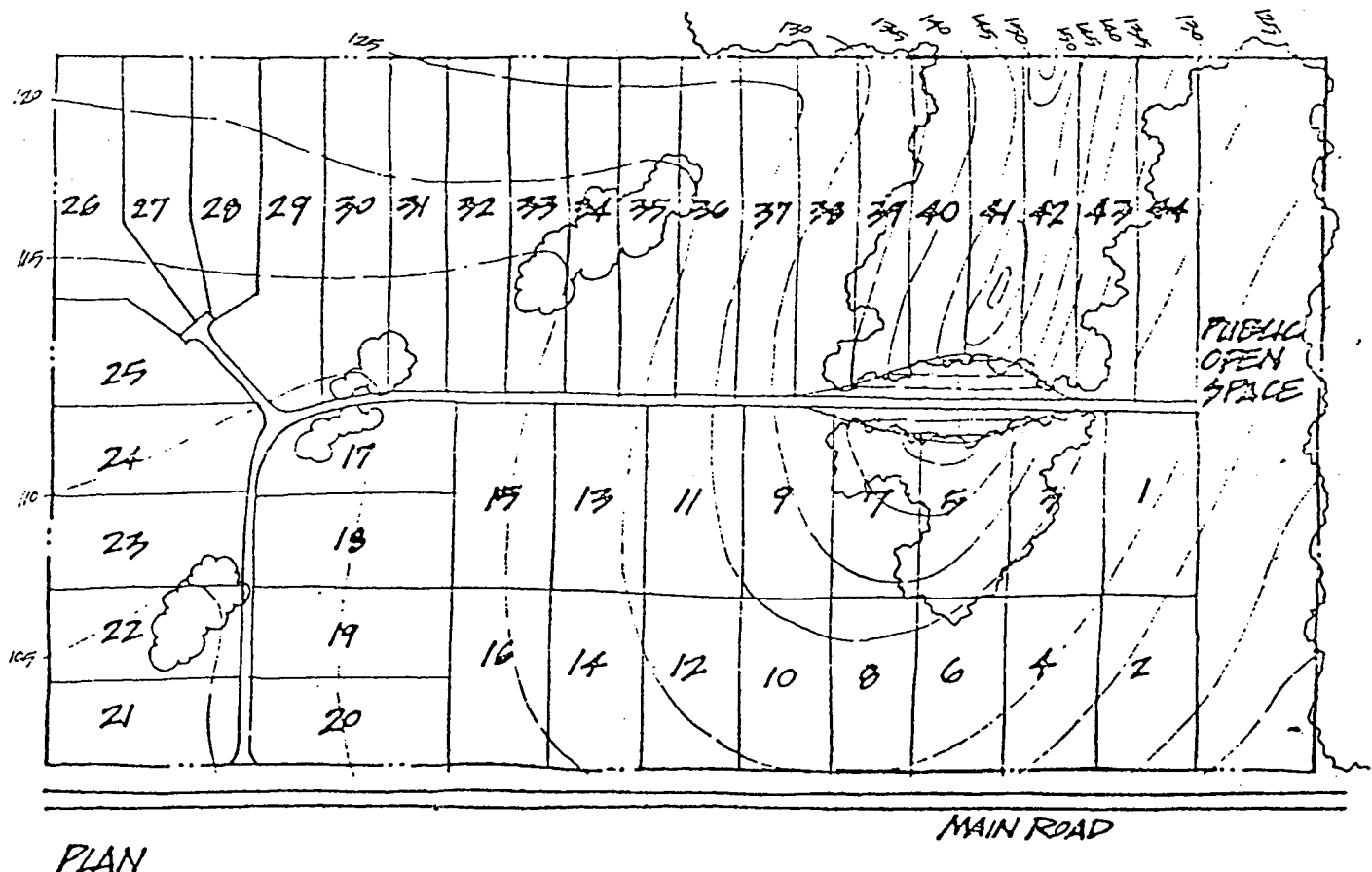
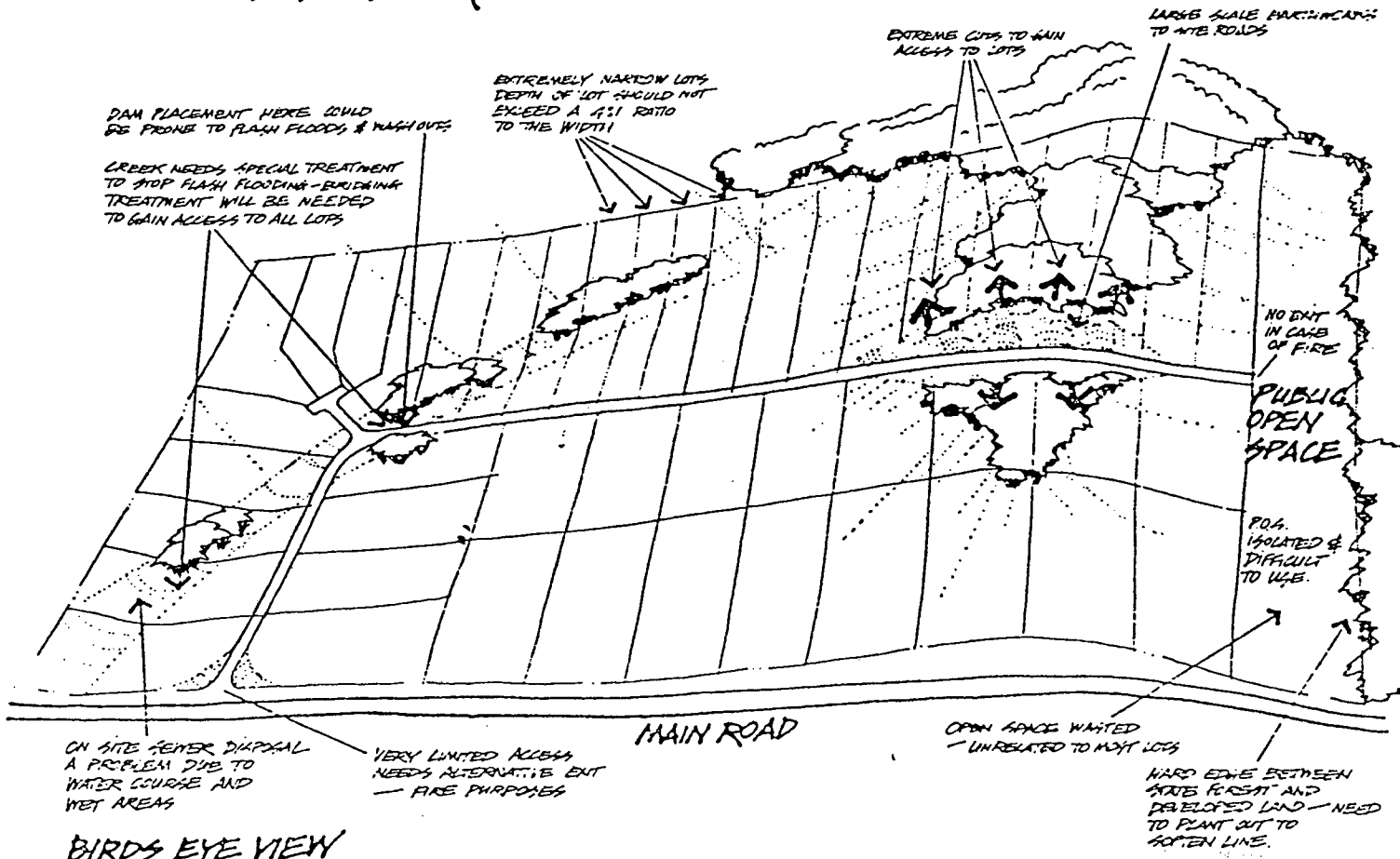
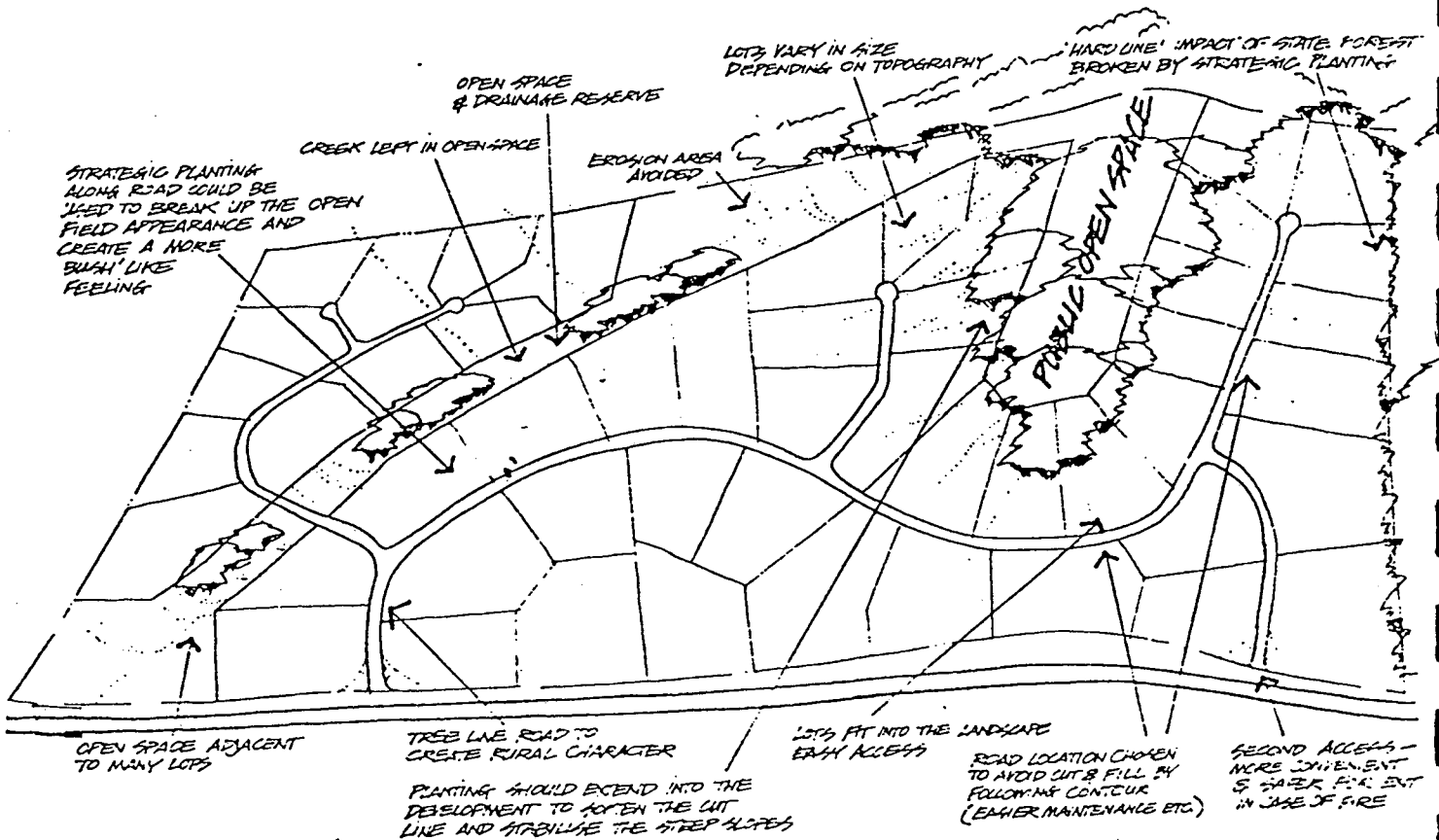


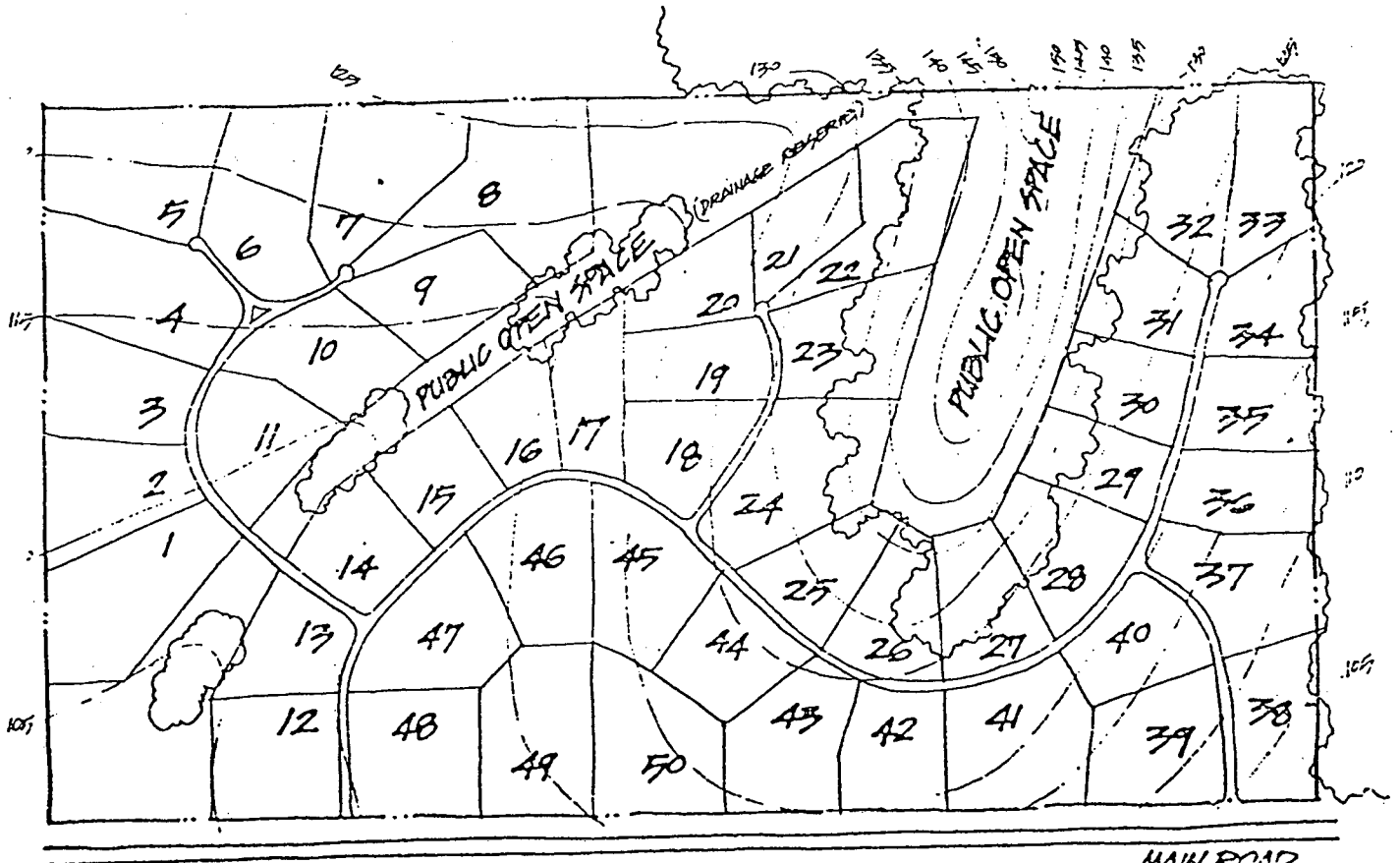
Figure 2.

SITE RESPONSIVE LAYOUT

50 LOT SUB-DIVISION (10 HECTARE SITE)



BIRDS EYE VIEW



PLAN

Figure 3

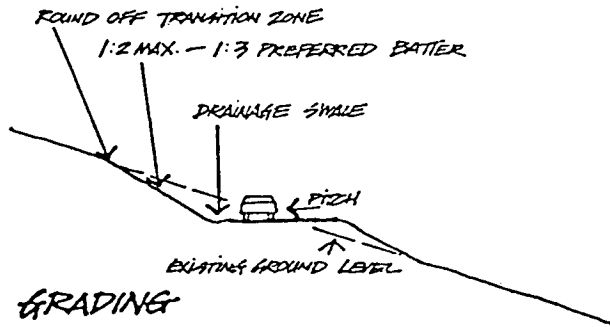
Development Guidelines - Scenic Protection Lands

- Lots on slopes should run parallel with or perpendicular to the slope but not run diagonally across it.

Vary the size, shape and type of lots. Individuality is important to many purchasers, and a range of lots enable each purchaser to more closely satisfy his needs.

- Plan the size and shape of each lot in relation to existing vegetation, views, frost hollows, winds and the location of services. Do not disturb existing trees or rock "formations" unless absolutely necessary.
- Each lot needs to contain a location for a dwelling, two car spaces (not covered - for visitors), and plantation areas suitable to accommodate large native trees. The suggested ratio is one tree (envelope 10 m x 10 m x 20 m high) per 500 m² of site area.

ROADSIDE TREATMENT



ROAD LAYOUT ON SLOPE

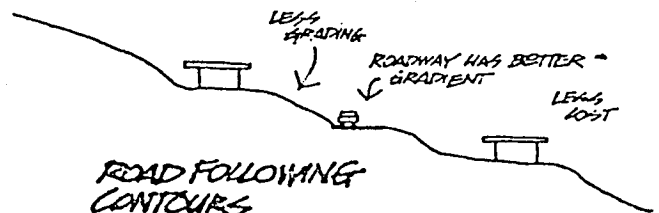
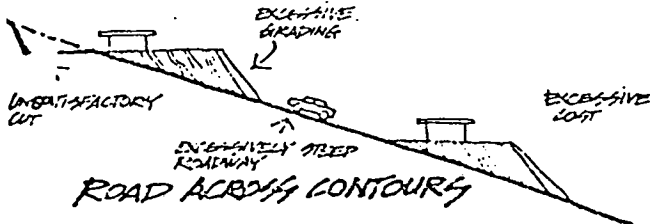
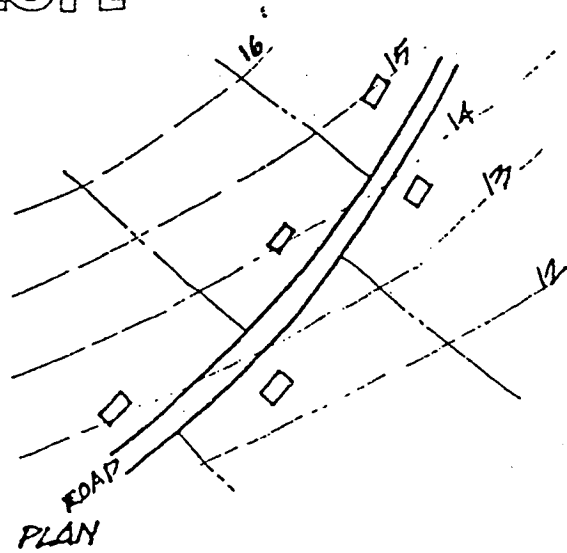
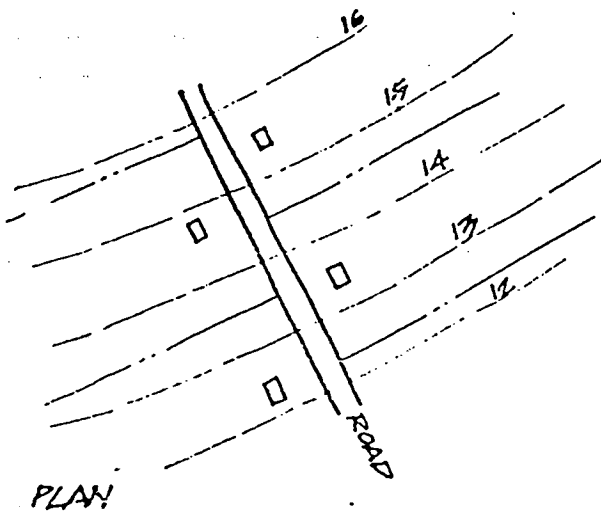


Figure 4

4.0 SITE ANALYSIS

The surrounding environment and climate are important factors in determining the shape and orientation of a dwelling. These natural factors should also have a major influence on the layout of rooms in the house and the arrangement of outdoor living areas.

Landscaping should be organised to blend the house into both the site and overall a landscape. Section 6 in the DCP identifies trees and shrubs that will help to do this. Species native to Armidale have been chosen.

The detailed planning and design of the house for the chosen site should consider:

- Site constraints such as steep slopes, poor drainage, poor soil conditions, exposure to hot summer winds, difficulties of access, exposure to frosts and availability of water for various purposes.
- Site opportunities such as direction of views, cool summer breezes, gentle slopes, use of existing trees, exposure to sun and solar energy collection.

VIEWS AND VISIBILITY

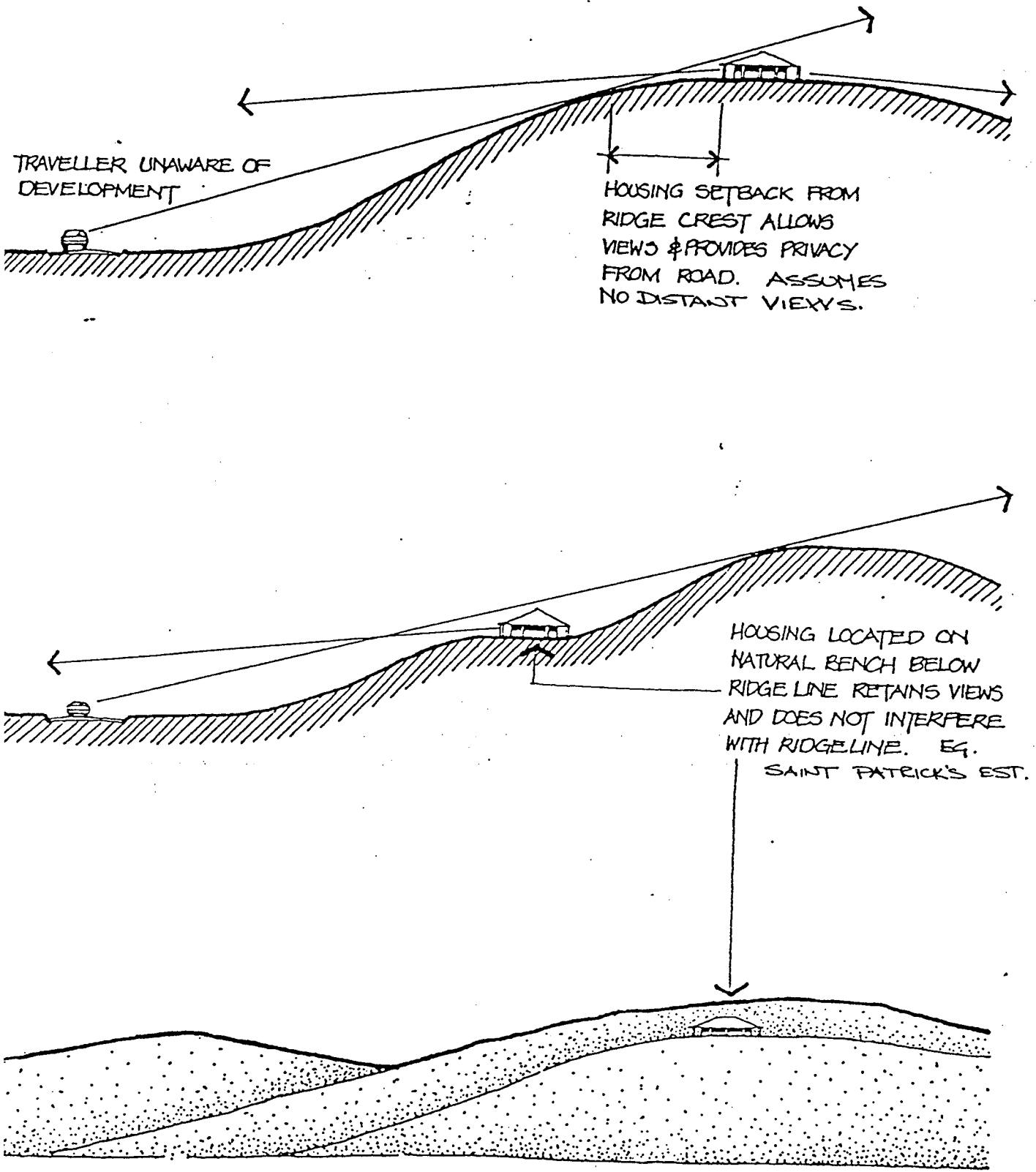
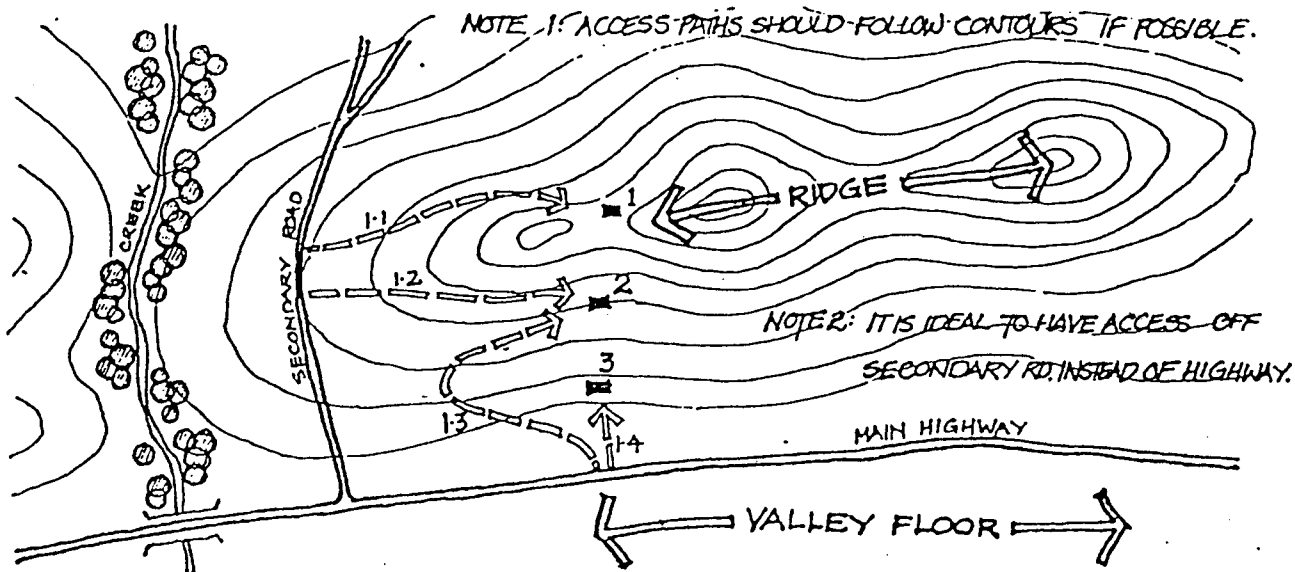


Figure 5

ACCESS:



WIND PROTECTION:

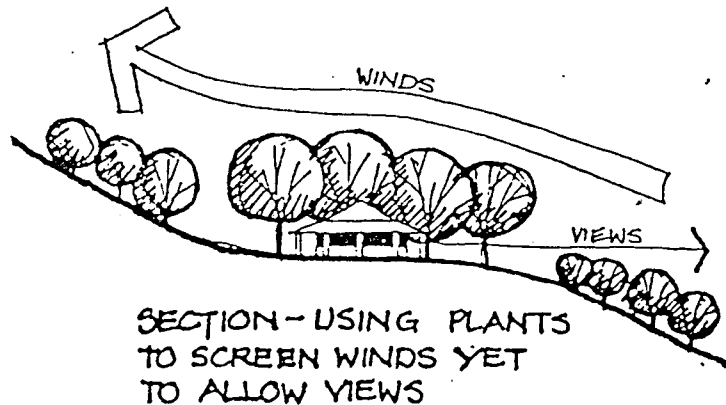
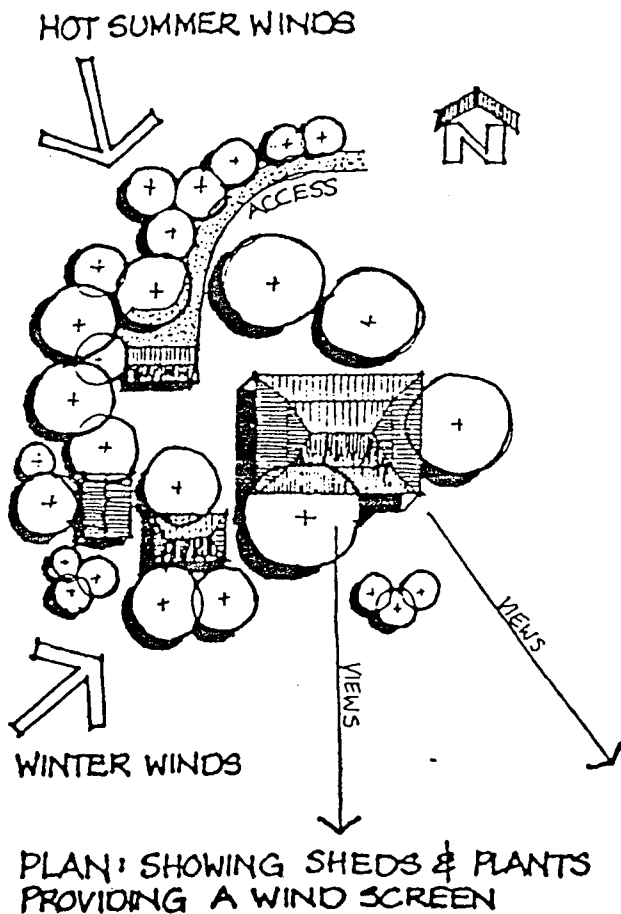


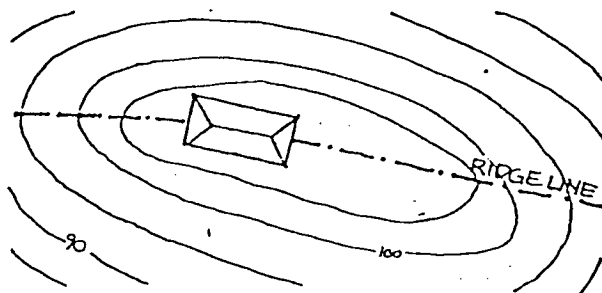
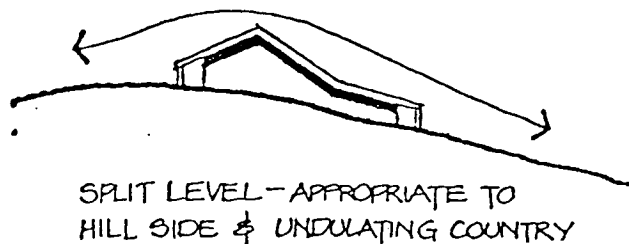
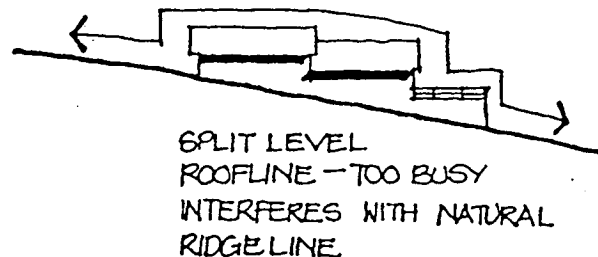
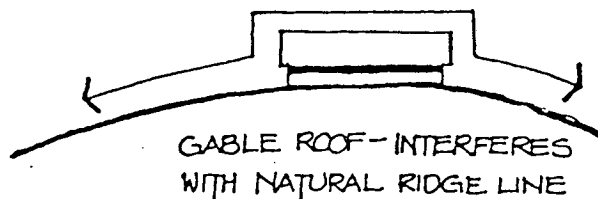
Figure 6

5.0 HOUSE DESIGN

A good house design is a successful response to all site opportunities, economic constraints, and lifestyle requirements. In rural areas, much greater flexibility is available than on a small suburban block, but it is also more important to blend the house into the landscape. These are some major considerations in house siting and design:

- The type of environment that can best provide for the needs of the household must be identified. The most suitable land might be cleared or forested, flat or hilly, high or low in rainfall, more or less suitable for cultivation, and so on, depending on the particular household.
- The house form should not only reflect these spatial arrangements, but in most situations it should also blend rather than interrupt or contrast with the overall landscape of which it is part. This means that a lot of thought should be given to its shape, materials and colours.
- Outdoor spaces need to be planned to provide for privacy, as well as to take advantage of goods views.
- The orientation of the house in relation to the sun and wind is important, and must take account of seasonal change.
- If solar energy collectors are to be mounted on the roof then an adequate area of the roof must slope towards the north. The type of use proposed for this collected solar energy will determine the angle of the solar panel. The energy collected may be utilised mainly for boosting the winter heating system, or it may be for year-round use. An on ground floor slab instead of an elevated timber floor will help to warm the house in winter and cool it in summer.
- The topography of the site will suggest the house orientation and slope of the roof. Flat and gently sloping sites offer the most flexibility in planning and design. Steep sites require special consideration to minimise unnecessary and costly earthworks.
- Existing trees should be retained wherever possible and utilised to blend the house and sheds into the landscape.
- Bushfire hazards are important considerations in any rural house design and layout.
- To maintain adequate privacy, dwellings should be set well back from road and other boundaries.
- The use of natural colours and non reflective materials (earthy tones) for external materials and other structures helps the buildings blend with the surroundings.

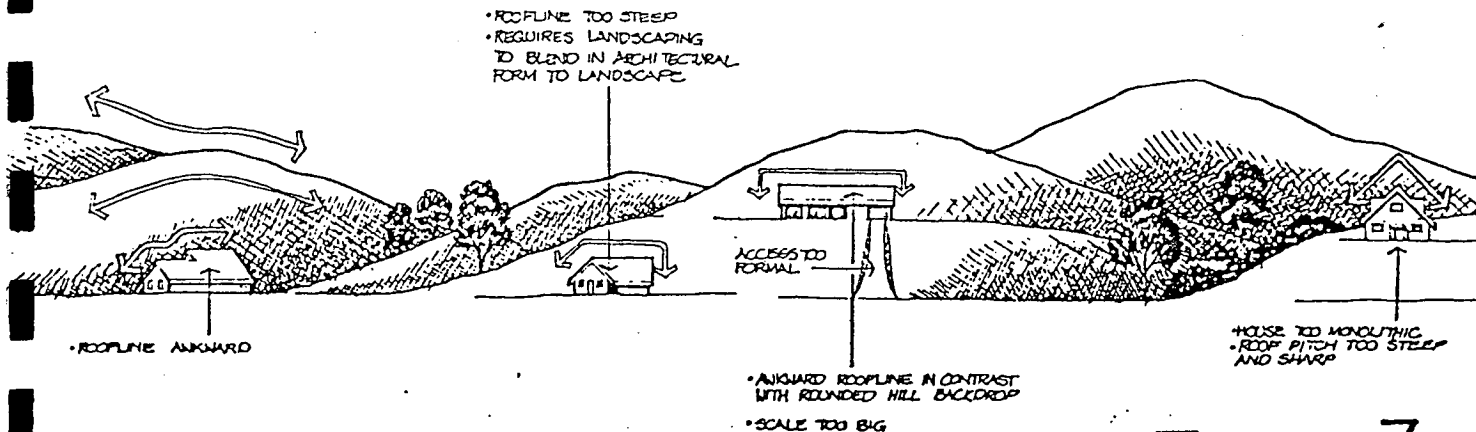
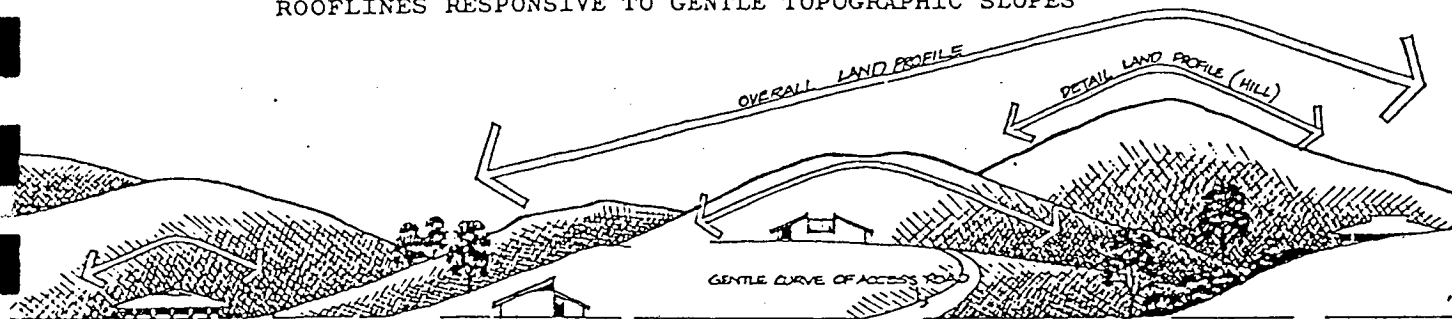
ROOFLINE:



THESE SKETCHES ILLUSTRATE SOME IDEAS ON HOW TO RELATE THE ROOFLINE TO SLOPE. FOR SOLAR ENERGY COLLECTION, ORIENTATE THE ROOFSLOPES TOWARDS THE NORTH.

IN STEEP COUNTRY, HOUSE SHOULD BE ALIGNED ON RIDGE - FOLLOWING RIDGE LINE

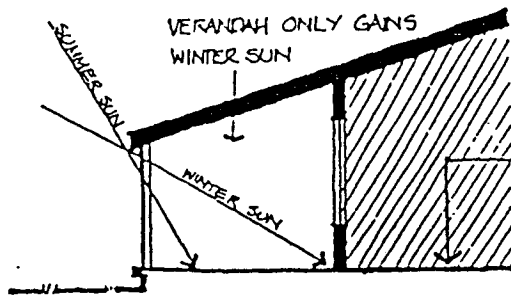
HYPOTHETICAL SERIES OF HOUSING LAYOUTS SHOWING ROOFLINES RESPONSIVE TO GENTLE TOPOGRAPHIC SLOPES



HYPOTHETICAL SERIES, SHOWING GENERALLY UNRESPONSIVE ROOFLINES

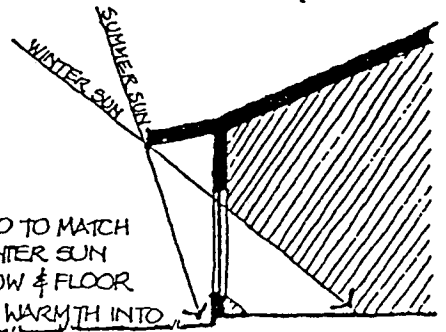
Figure 7.

VERANDAHS:



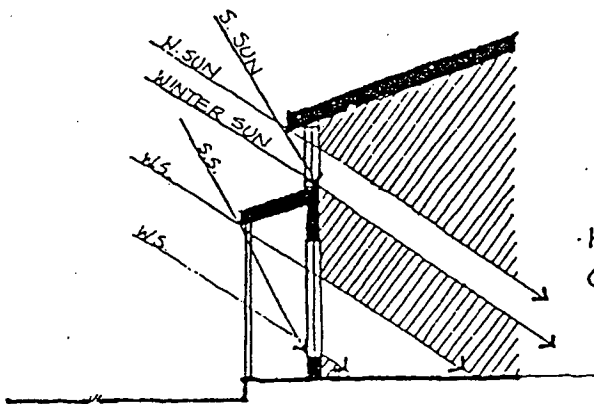
SLAB ON GROUND IS MORE ENERGY SAVING THAN RAISED FLOOR SURFACES

VERANDAH GIVING TOTAL PROTECTION — COOL IN SUMMER / COLD IN WINTER



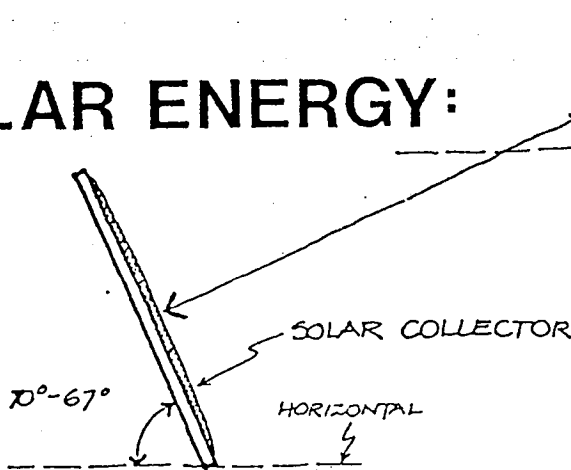
WINDOW DESIGNED TO MATCH EAVE WIDTH. WINTER SUN HEATS UP WINDOW & FLOOR WHICH RADIATE WARMTH INTO ROOM.

NO VERANDAH — HOWEVER EAVE IS DESIGNED TO ALLOW FOR WINTER SUN AND SUMMER SHADE.

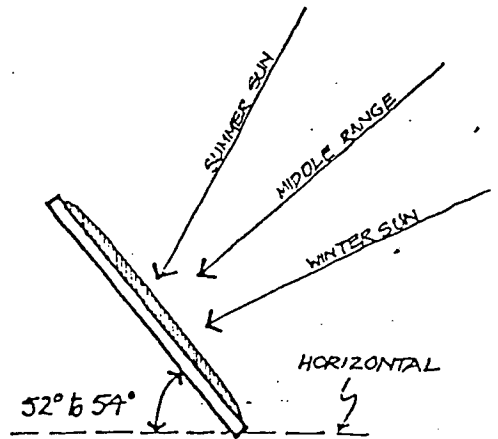


HOUSE WITH ADVANTAGES OF BOTH OF PREVIOUS DESIGNS.

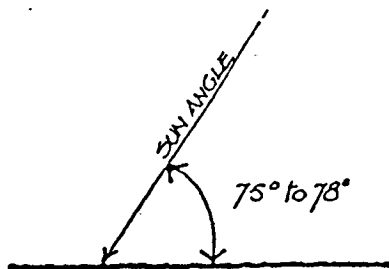
SOLAR ENERGY:



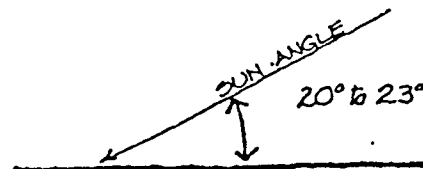
MAXIMUM WINTER COLLECTION



YEAR ROUND COLLECTION



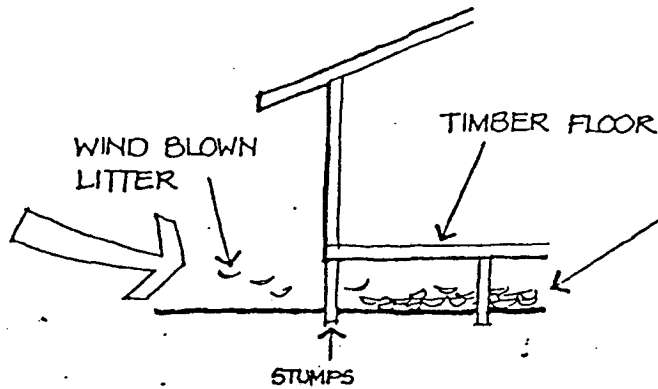
SUMMER



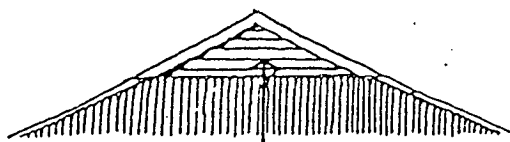
WINTER

Figure 8

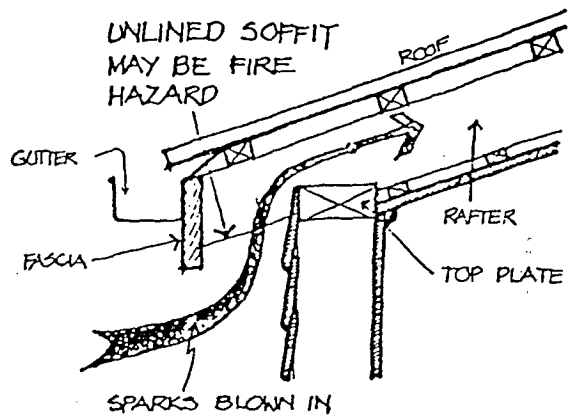
FIRE PROTECTION:



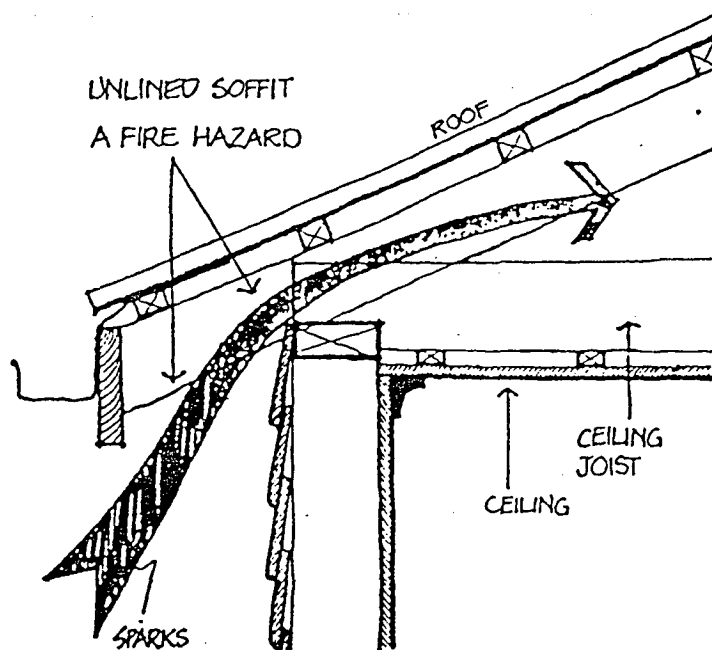
EVENTUALLY, THIS LITTER WILL BECOME A FIRE HAZARD. UNDERFLOOR AREAS SHOULD BE BOXED IN.



VENTILATION LOUVRES IN ROOF SHOULD BE LINED FROM INSIDE WITH FLYWIRE SCREENING.



CORNER DETAIL-SECTION OF ROOF & WALL



CORNER DETAIL-SECTION OF ROOF, CEILING & WALL

Figure 9.

6.0 SERVICES

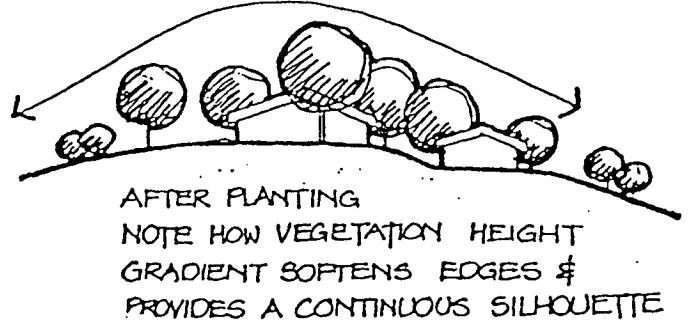
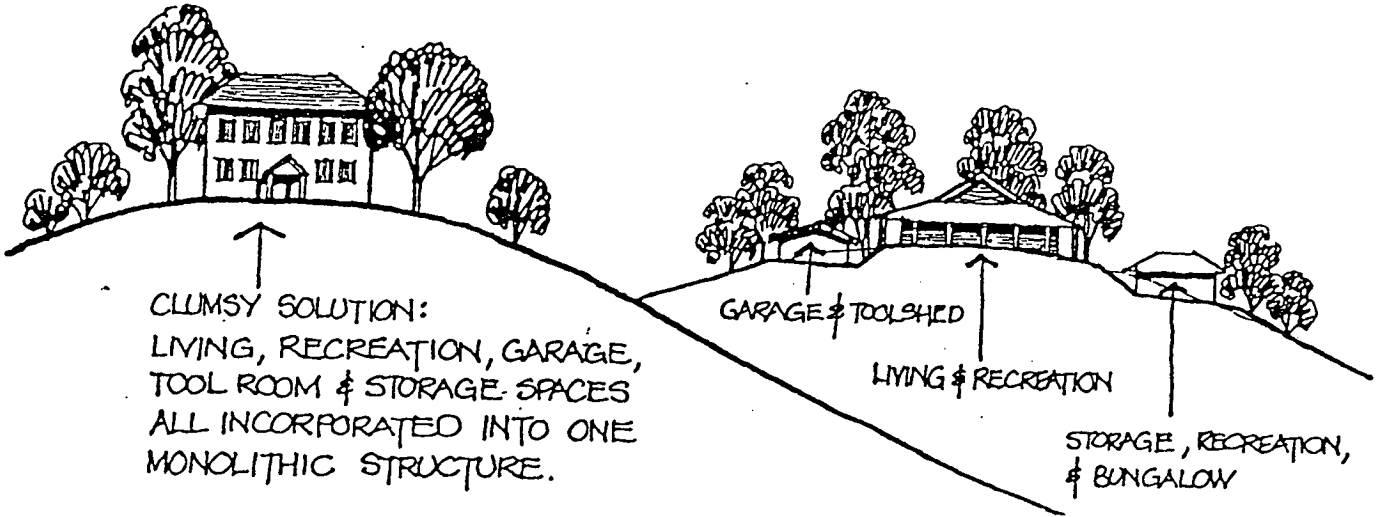
In the majority of cases, water, electricity and telephone services will be available to the land. If this is not the case then it should be realised that rural allotments are far more expensive to service than urban allotments so alternative arrangements should be examined.

Where mains services are provided, the connecting authority may provide connection only to the front of the allotment and require that additional costs be paid by the householder. This extra expense is usually worthwhile in order to take advantage of the house site already chosen as the most suitable. Where long distances are involved undergrounding of utilities is recommended to avoid maintenance problems and restrict landscaping.

7.0 SITE LANDSCAPING

Site landscaping plans will be required to be submitted with both subdivision and building/development applications. These plans should identify which trees are proposed to be removed and where new trees are to be planted, including species name. A list of native trees known to grown in the locality is included in the DCP. Council's policy is to preserve the natural scenic qualities of the hills/ridgetop lands through ensuring vegetation and encouraging the planting of only local native species. Through the planting of additional trees, the impact of new dwellings will be soften, and owners will benefit from increased privacy, wind and sun protection, a pleasant outlook as well as attracting wildlife.

LANDSCAPING & ACCESSORY BUILDING:



DESIGN CONSIDERATIONS ORIENTATION:

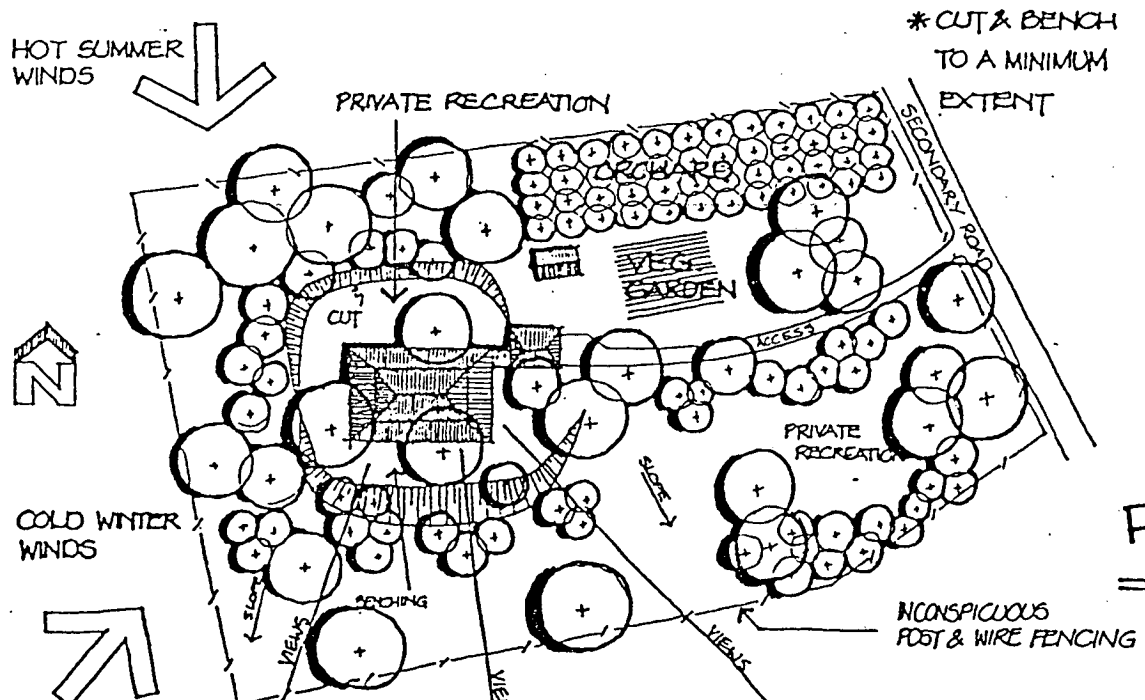
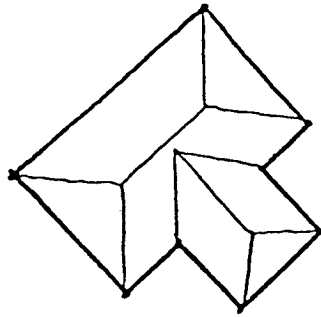
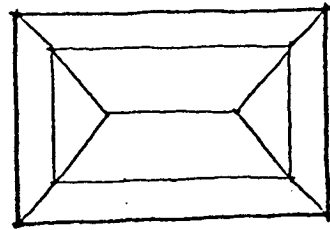


Figure 10

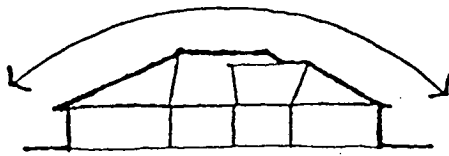
THE LACK OF VERTICAL PANELS, WITH THE ROOF SLOPING DOWN FROM THE ROOF RIDGE MAKE THE TRADITIONAL HIP ROOF SUITABLE FOR MOST SITUATIONS IN THIS LANDSCAPE:



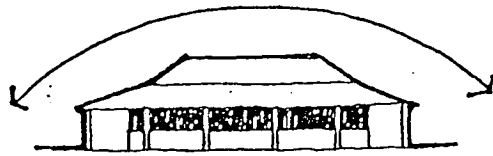
PLAN



PLAN

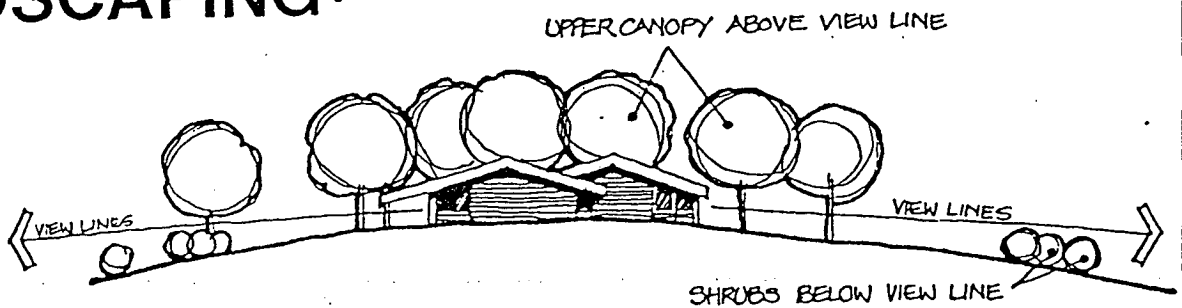


ELEVATION



ELEVATION

LANDSCAPING:



LANDSCAPING ALLOWS VIEWS, YET SCREENS HOUSE

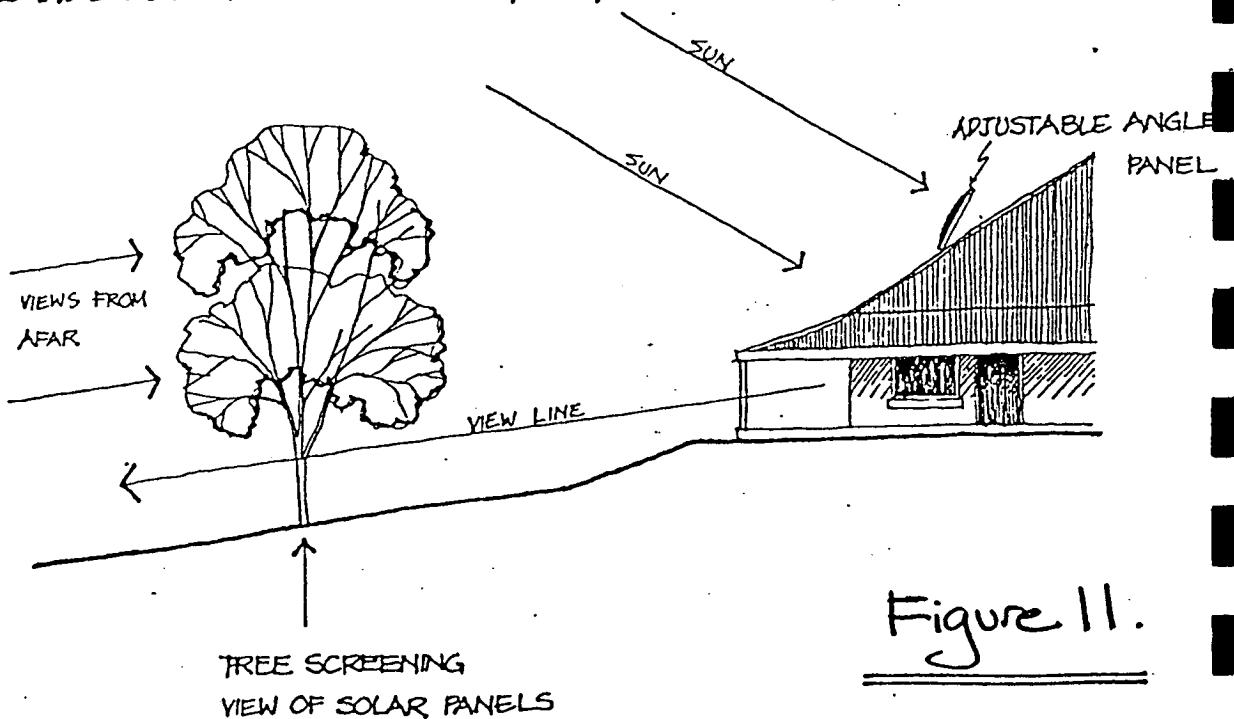


Figure 11.

DAM DESIGN:

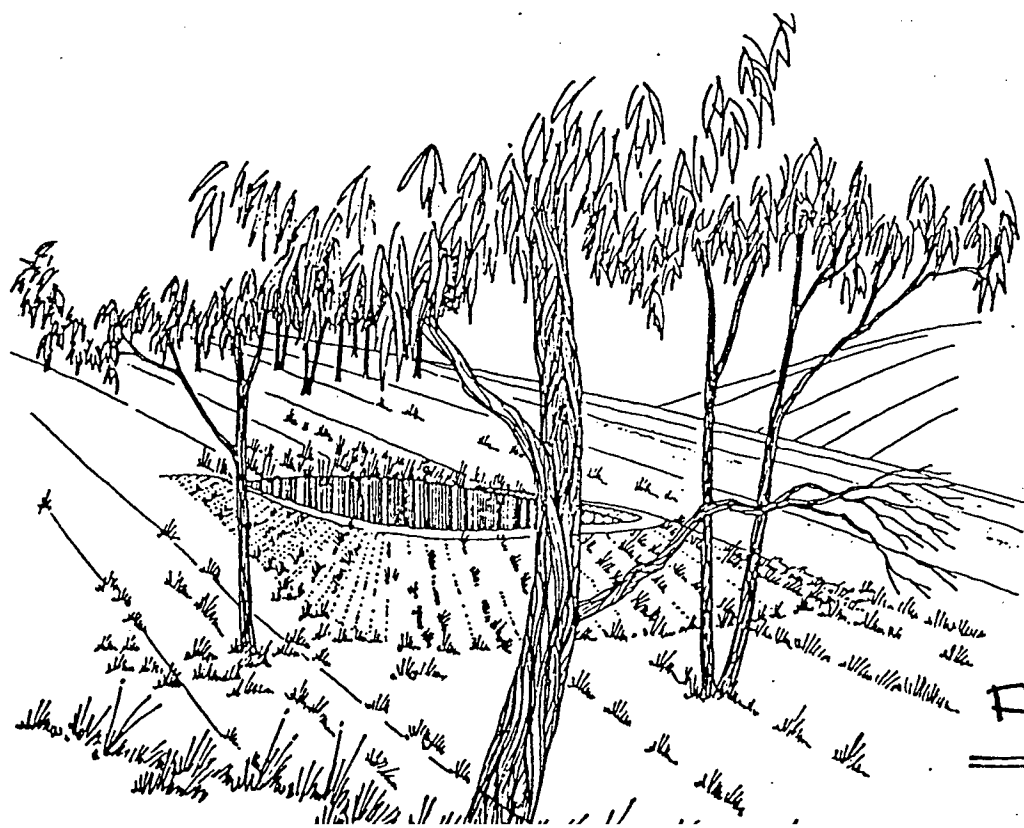
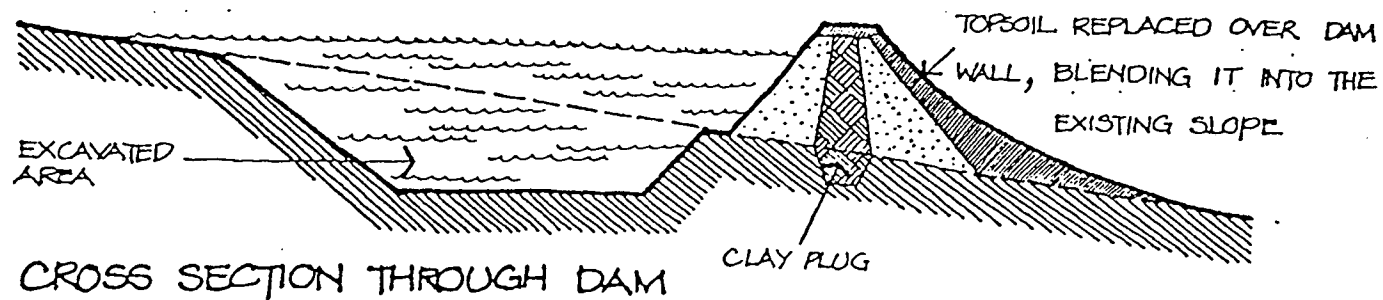
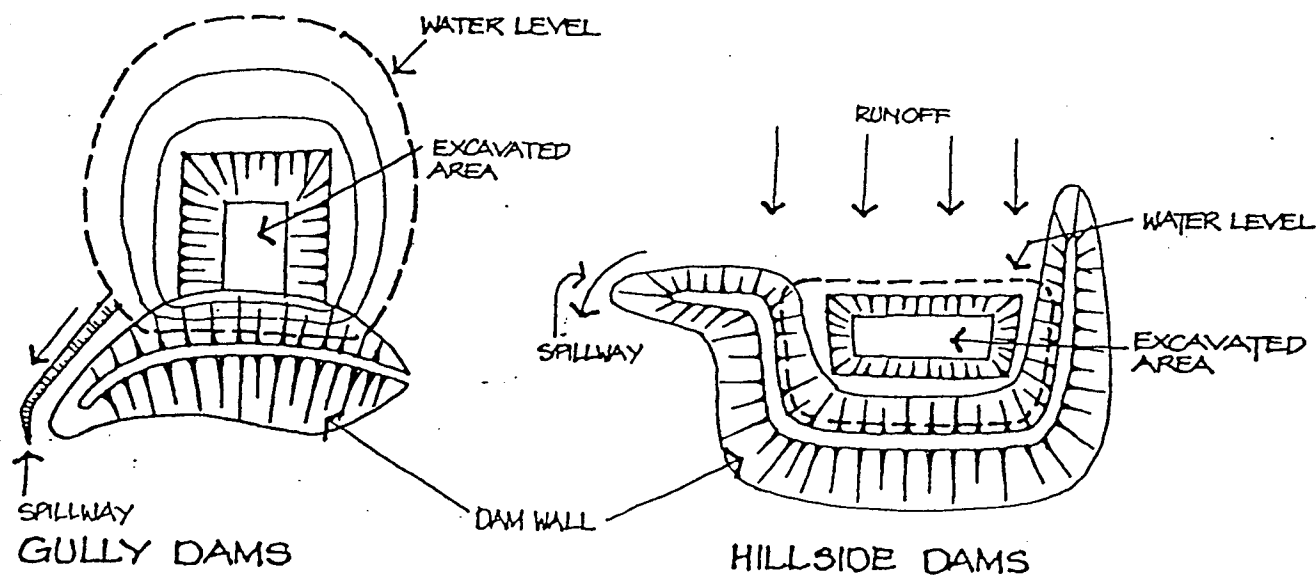


Figure 12.