MOORA MOORA

COOPERATIVE COMMUNITY

PLANNING PERMIT

This is to apply for a planning permit for the Moora-Moora Co-operative Society to establish a Co-operative Community Settlement on Mt. Toole-be-wong (Lots 57 & 58, Parish of Gracedale, County of Evelyn) in accordance with the objectives, policies and plans outlined in this document.

This application is set out as follows:

1. Aims of the Co-operative
2. Site analysis
3. Planning considerations
4. Proposed development
5. Details of the planning permit

Report prepared by the Moora Moora Co-operative in association with a planning team of Ron Billard B.Arch., Mark Burns B.Arch. and on Duggan B.Arch. with consultant Bill Chandler, Planner.

SYNOPSIS

The Moora Moora Co-operative Community has three main aims - ecological, social and educational - and has purchased 618 acres on Mt. Toole-be-wong for the purpose of achieving these objectives. The Co-operative have carried out extensive site surveys, have interpreted the findings in the context of their three main aims, and proposed residential development on the mountain with objectives similar to those proposed by the Residential Conservation Zone Draft Report. Thirty dwellings are proposed concentrated in six separate groups. The focus of the planning is the existing lodge which will be converted to a community and education centre. The residential development is restricted to existing cleared land and in areas not visible from the Yarra Valley. This planning approach was adopted after consideration of the landscape and scenic value of the mountain, the impact of development, the socially viable size of the community, the economic viability of the project, and the economic and manpower resources necessary to manage the proposed conservation and reafforestation programs.

The Moora Moora Co-operative Community having single ownership and control over such a large section of the mountain offers the same benefits of single ownership, at no expense to the public, as would be achieved if the site had been bought by the National Estate or the Healesville Council, but with the added bonus that with the economic and manpower resources being so readily available right at the site substantial reafforestation and bushfire control measures can be instituted and effectively and efficiently maintained. This unique form of private Co-operative ownership and development avoids the disastrous consequences of the piecemeal development of conventional subdivisions with divided and uncoordinated control.

The sort of development the Co-operative is proposing is firmly modelled on a belief that the practicality of conservation rests not on putting up fences and keeping people out. With proper management and control people can live with the natural environment without causing its destruction. The Co-operative as a private enterprise venture offers one possible answer to the conflicting needs of growth and conservation.

The Co-operative members undertake that all building works shall comply with all relevant regulations, and assume responsibility for the maintenance of all roads and tracks on their property, the installation and maintenance of all water supply and waste disposal facilities and will implement fire protection measures as recommended by the Country Fire Authority and the Forests Commission.

1. THE MOORA MOORA CO-OPERATIVE

1.1.1 Moora is aboriginal for 'the earth': Moora Moora means 'a friendly spirit'.

In 1973, after two years of regular meetings where their aims and objectives were developed and clarified, Moora-Moora members formed themselves into a registered Community Settlement Society under the Victorian Cooperative Act 1958. They are now registered for the issue of 360,000 one dollar shares in packets of 6000 shares per member. They thus have a potential ultimate membership of 60 adult members; approx. 30 families) and at present has 19 such members.

1.2.1 The co-operative has three main aims:

(a) To establish a co-operative community in which to live by:

(i) Planning living accommodation in housing groups to share facilities and to allow for both privacy and proximity to friends.

(ii) Continuing the present small scale agriculture and farming.

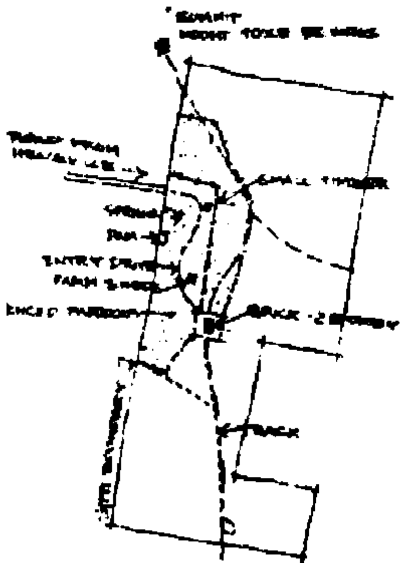
(iii) To become socially, culturally and economically involved in the surrounding district, participating in clubs, societies, and other group activities . Some members intend to earn their income locally.

(iv) To conserve native flora and fauna essentially in its natural state by ecologically sound residential management of its land and through cooperation with neighbouring landholders, residents, the Shire Council conservation authorities, etc.

(v) To create a learning environment focused on a Community centre. Here meetings will be located, activities shared and knowledge exchanged.


Healesville
52
53
54
55
56
57
58
59
60
61
62
ACHERON

2. SITE ANALYSIS



2.1 **The Site**

2.1.1 The Moora-Moora Co-operative Community in April 1974 purchased 618 acres of land on Mt. Toole-be-Wong for the purpose of achieving these aims. An analysis of this site has been carried out over a period of 9 months to determine the physical potential for development of the land.

2.2 **Microclimatic**

2.2.3 An examination of Bureau of Meteorology data indicated that the site is subject to:

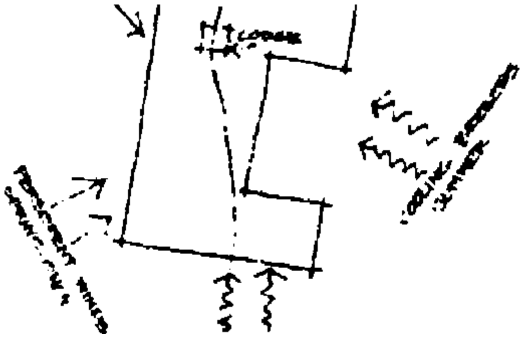
(a) Cold northerly winds in winter and spring

(b) Strong cold north-westerlies in autumn, winter and spring

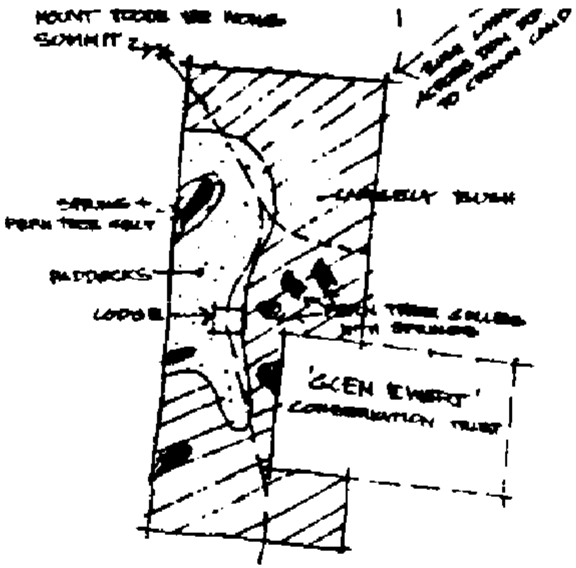
(c) Strong persistent cold afternoon south-westerly winds in spring

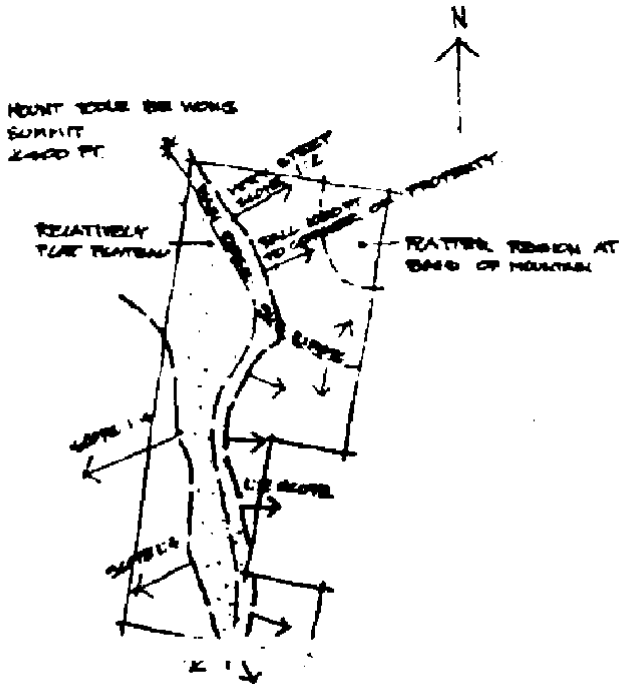
(d) Cooling southerly and south-easterly breezes in the late after-noon in summer

(e) Cooling easterly summer breezes in both morning and afternoon



Annual rainfall approximates 1.2 m (47 inches).





2.3 **Flora and Fauna**

2.3.1 A flora and fauna survey indicated that there is an abundance of diverse plant species and animal wildlife on the site including at least:

(a) 39 plant species (mountain ash, manna gum, blackwood, hyacinth, orchid, various types of tree fern, etc.)

(b) 61 species of birds (lyre-birds, blue-wrens, kookaburras, wedge tailed eagles, etc.)

(c) 8 species of mammals (wombats, koalas, wallaby)

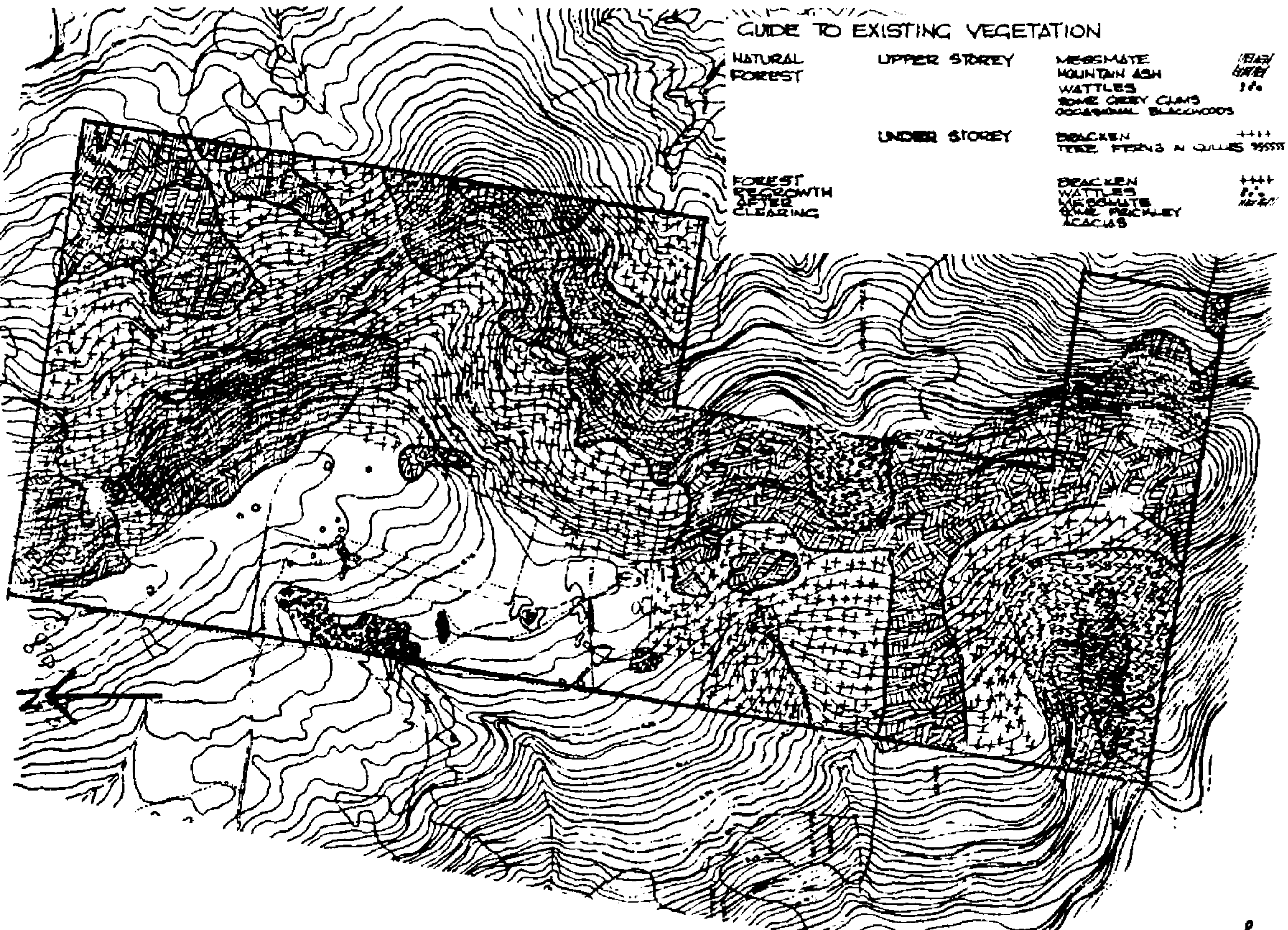
(d) 22 species of invertebrates (cicada, lace winged tree hopper)

(e) 14 species of reptiles and amphibians (goanna, common tree frog)

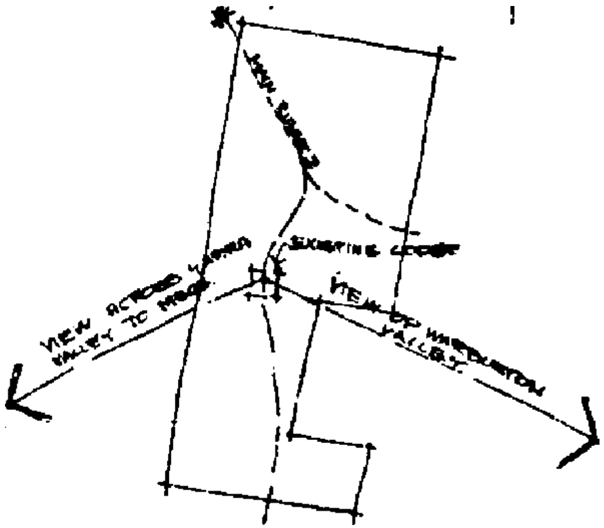
2.3.2 Approximately 4/5 of the site is natural bush or regrowth areas with 8 natural mountain springs in superb fern tree gullies. This bush links with neighbourhooding 'Glen Ewert' property recently bought by the Conservation Trust and across Don Road to extensive tracts of protected Crown Land, providing an important natural habitat for native birds and animals.

2.4 **Terrain**

2.4.1 Topographically the site is dominated by the main ridge on Mt. Toole-Be-Wong which runs axially along the whole length of the one-third of the way down the main ridge. The main ridge is comparatively flat land with a slope of less than 1 in 16 for most of its length, while much of the remainder of the site has a land fall of greater than 1 in 4, reaching a maximum slope 1 in 1 in at some


GUIDE TO EXISTING VEGETATION
NATURAL FOREST
UPPER STOREY
MESSMATE
MOUNTAIN ASH
WATTLES
SOME GREY GUMS
OCCASIONAL BLACKWOODS
UNDER STOREY
BRACKEN
TREE FERNS IN GULLIES
FOREST REGROWTH AFTER CLEARING
BRACKEN
WATTLES
MESSMATE
SOME PRICKLEY ACACIAS

parts. There are 6 pronounced gullies formed up around the site, 4 of which have a number of tree ferns. East, north-east, west and south-west are the predominant directions of orientation of the slopes.

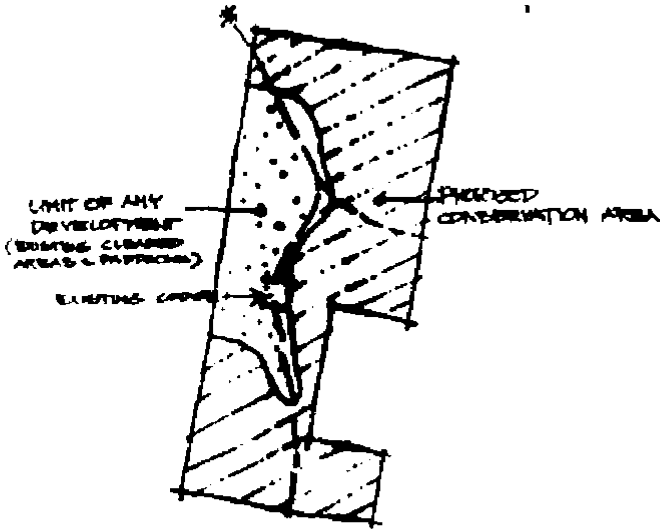


2.5 Views

2.5.1 Views from the site in two main directions:

(a) To the west and south-west toward Melbourne across the Yarra Valley.

(b) To the east and south-east toward Warburton.



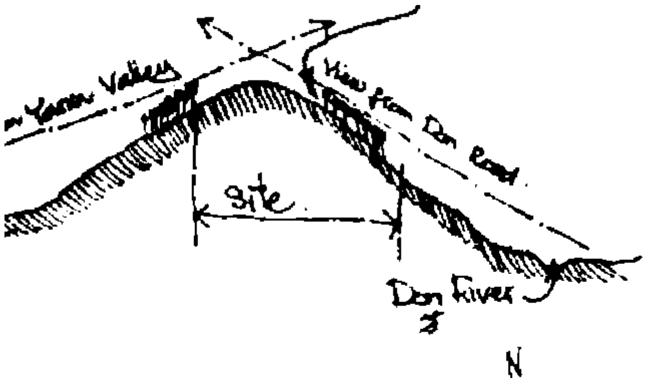
3. PLANNING CONSIDERATIONS

3.0.1 In the development of a planning proposal and the determination of the appropriate size of development consideration has been given to the natural systems of the Mount Toole Be Wong site as outlined in the site survey, landscape value viewed from the Yarra Valley, wind control and desirable orientation Of housing, and the social needs of the Co-op Community.

3.1 **Conservation of Flora and Fauna**

3.1.1 One of the important objectives of the Moora Moora cooperative is the protection of the natural environment. To protect the bush area, it has been decided to restrict all development such as buildings or farming to areas on the site already cleared and to introduce a series of control methods for the continued preservation of the bush. (see Section 4.7)

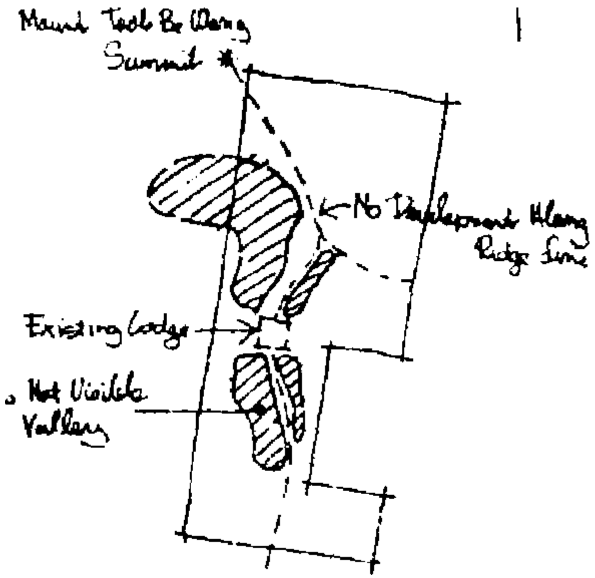
Area behind trees but off ridgeline are not visible



3.2 **Landscape Value**

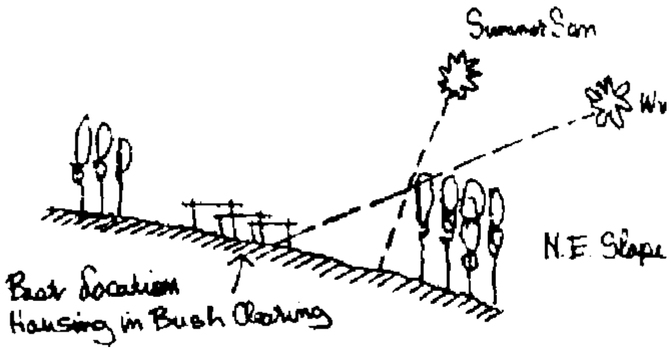
3.2.1 Mount Toole-Be-Wong as the first of a chain of mountains forming the Acheron Plateau rising out of the Yarra Valley forms a very prominent backdrop to the scenic landscape of the Yarra Valley. A high priority will be given to retaining and enhancing the existing bush areas on the side of the mountain.

3.2.2 A study of the views of Mount Toole-Be-Wong from a number of prominent areas in the Yarra Valley have shown that if development is restricted to the plateau area on top of the mountain, but kept off the ridge line, it will not be visible from any of the areas studied.



3.2.3 Protection of the landscape value can be further ensured by merging all nel development with the existing bush by special tree planting and by locating development at the edge of the existing cleared and pastured areas.

3.2.4 Moora Moora Co-operative's maintenance of single control over the 618 acres site with members having lots only of sufficient size to build on and maintain a small vegetable garden means that the landscape and scenic value of the mountain can be maintained and enhanced instead of being scarred by the alternative of piecemeal development by conventional subdivision. Thus at no public cost to the Healesville Community this mountain will be protected from further unsightly development with the added bonus



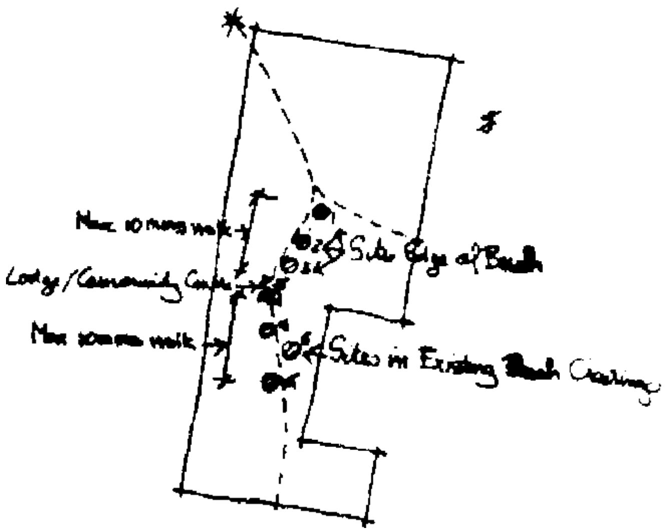
3.4. **Orientation to Winter Sun**

3.4.1 Desirable orientation of housing for the cool temperate climate of Mount Toole-Be-Wong is on a North East slope to take maximum advantage of available winter sun. Consideration has been given to winter sun cut-off angles for the location of housing groups.

3.5 **Form of Community**

3.5.1 Reflecting the strong social aims of developing a sense of community, the Moora Moora Co-operative has made a firm commitment to the principle of housing groups related to a community and education centre.

3.5.2 The community/educational centre will provide facilities for people of all ages. These the co-cp would plan to make available to some extent to the Healesville community. (eg. facilities for film, craft, adult education classes and special library facilities). At those times when there are sufficient children, interested parents and teachers within the co-operative Itself it is planned to:



(i) cater for pre-school children

(ii) to supplement the school curriculum eg.bush craft agriculture

and

(iii) in line with the emphasis on individual initiative during some periods of time the co-op might accept the total educational responsibility for groups of children of either members or those legally associated with it.

3.5.3 The existing homestead/lodge on the property is ideally suited as the basis of the community/educational centre because of its large airy rooms and central location on the plateau region of the mountain. The small original timber house near the existing entry is to be preserved and will be used as an annexe to the main community centre.

3.5.4 Housing groups will be located on each side of this centre within a distance of 10 minutes walking. Each Site is given its own identity by being located in separate natural clearings at the edge of the bush. Existing stands of trees will be supplemented by further landscaping to provide separation between housing groups.

3.6 **Housing Groups**

3.6.1 Apart from the social benefits of group housing to the Co-operative, this form of housing has very clear conservation advantages to the site. They are:

(i) The concentration of housing in tight groups will lessen the impact of man on the natural bush.

(ii) Shorter lengths of road serving housing sites arc needed - these roads will be confined to the flat plateau region and wherever possible will run with the contours to minimise the disturbance to the landscape value of the site.

(iii) An efficient, ecologically sound sewage treatment system is economically viable in a tight group housing situation compared with a scatter of individual houses.

(iv) A "green break" zone around each group housing site will provide good protection from bushfires. The concentration of manpower and such material resources as water storage dams in groups will further reduce the chance of uncontrolled bushfire.

3.7 **Extent of Proposed Development**

3.7.1 In the site planning 6 group housing sites have been selected. It is proposed that each housing group will consist of a minimum of 4 and a maximum of 6 dwellings. The maximum area of each site for group housing development including common buildings and facilities has been set at 2.0 acres with a further 0.75 acres available for a vegetable garden plot per housing group. The proposed housing groups have been represented on the accompanying drawing by a circle to the scale of 2 acres. The final shape of the housing group need not be a circle but will respond to the particular site characteristics. The exact position of the group within the clearing in which it has been located will also vary according to the preferences of that group of members (eg. close to the bush or in the centre of the clearing).

3.7.2 The required number of dwellings on the site is 30. This number was arrived at after consideration of:

(i) the socially viable size of a community

(ii) the impact of development on the environment

(iii) protection of the landscape value of the mountain

(iv) economic viability of the proposed development

(v) economic and manpower resources necessary to manage the proposed conservation and reafforestation areas and fire control on the site.

3,7.3 The areas already cleared or fenced for farming or agriculture will remain as a common farming Area with grazing or in certain areas some agriculture by some of the co-operative members.

4. PROPOSED DEVELOPMENT

4.1 **Planning Proposal**

(see accompanying drawing)

4.2 **Housing**

4.2.1 Dwellings will be constructed in groups in the areas shown on the drawing. Individual dwellings and the group of dwellings as a whole will be designed and constructed of such materials that they will blend harmoniously with the surrounding bush and landform. Highly reflective materials for roofing and cladding will not be used and all new buildings will be sensitively sited off the ridge line with appropriate screening by native trees or shrubs.

4.2.2 Groups of houses will be designed to provide both community areas and individual private outdoor areas.

4.2.3 The Co-operative will have to approve any proposed building by individual members prior to any application being made to the Healesville Shire Council for a building permit.

4.2.4 All co-op members propose to take up permanent residence on the property and will therefore be building substantial houses and not holiday shacks.

4.2.5 It is envisaged that the major part of the development will be completed within a 5 year period. It is hoped that a start will be made on at least 3 houses next summer.

4.3 **Water Supply**

4.3.1 Water supply for dwellings, irrigation of gardens, and drinking water for stock will be provided by either the housing groups or the co-operative.

4.3.2 Possible methods of water supply are:

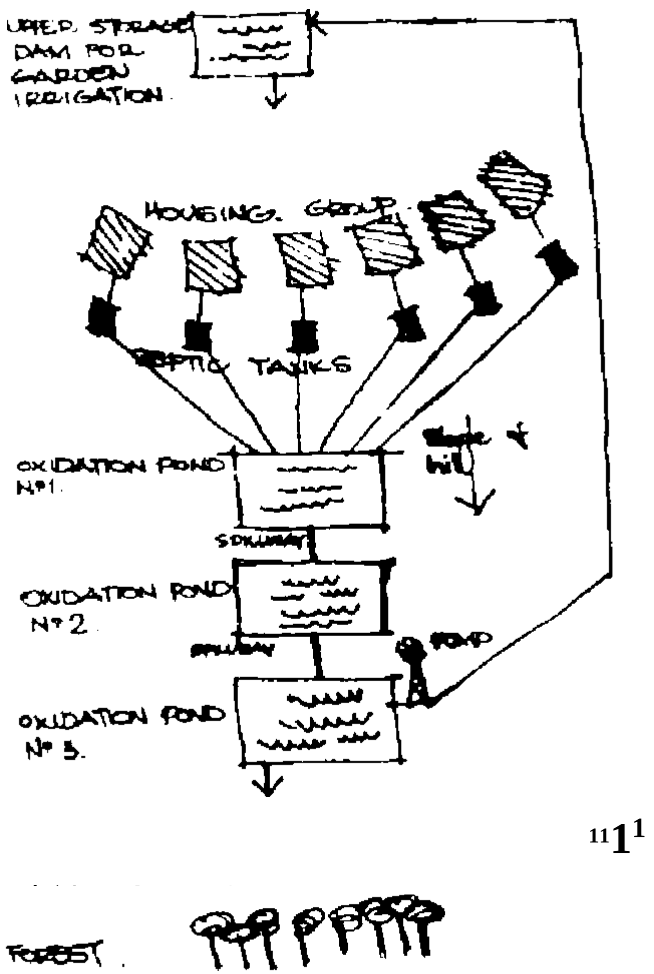
(i) Rainwater storage tanks fed from building roof catchment. Tanks could be shared among the housing group, or connected to individual dwellings. Supply from tanks would be by mains-pressure pump.

(ii) Recycling of treated wastewater for garden irrigation. Water in the final pond of the waste treatment system would be pumped to a higher dam and gravity fed to gardens. Garden water supply would be shared among the housing group.

(iii) Secondary domestic water supply, stock water supply water supply to community centre, and garden water supply by reticulation throughout the site of subterranean spring water from spring adjacent to the West boundary. Water from the spring would be pumped up to storage tanks located on the main ridge and gravity fed to housing groups, community centre and stock watering troughs. This system would be provided by the co-operative.

(iv) Construction of rainwater collection dams or dam across the spring south-west of the existing Lodge and upper storage dam with reticulation by gravity to housing groups, community centre and stock watering troughs. This system would be provided by the co-operative.

4.3.3 With the high rainfall and at least 8 mountain springs on the property water supply to the proposed development does not present a problem. A feasibility study is being undertaken to examine which of the alternatives proposed above will economically and efficiently serve the cooperatives needs. Particular attention is being paid to the design of a water supply system that will have sufficient water in storage above each housing group (preferably 40' head) for use in case of bushfires.



WASTE TREATMENT (DIAGRAMMATIC ONLY)

4.4 **Waste Handling**

4.4.1 Used Water & Sewage Treatment will be handled according to the following principles:

(i) Used water and sewage will be l_reated and disposed of in such a way that it will be assimilated into the environment without damage in either the long or short term. Special consideration has been given to the existence of natural ground water which rises in at least 8 known springs on the site.

(ii) Used water and sewage will be treated and disposed of at each housing group.

(iii) The methods to be used will be as simple and economical as practicable.

4.4.2 The proposed method of treatment is as follows (descriptive only):

(i) Waste water and sewage taken to primary settling and anaerobic digestion tank - ie. septic tank, kitchen and laundry water first passing through a grease trap. The tanks would be sized to allow a 10 day retention period. Each dwelling would have its own tank.

(ii) Discharge from the primary tank to flow direct to shallow oxidation and settlement pond No.1 This pond to be located at least 30 metres from the nearest dwelling. Dissolved oxygen in the shallow pond promotes aerobic digestion of dissolved and suspended water. The nutrients in the water plus light stimulate algae growth which releases further oxygen into the water. Ponds will be designed to prevent the entry of water run from the hill, and to prevent the percolation of waste water through the pond walls and into ground water. Pond No. 1 to have a 20 day retention period.

(iii) Water discharged over a spillway from No.1 pond into No.2 oxidation and settlement pond. 20 day retention period in pond No.2.

(iv) Water discharged over spillway from No. 2 pond into No. 3 oxidation pond. This pond may, if desired contain fish which will eat the microalgae which has grown in the other ponds and which is suspended in the water.

(v) Water discharged from this pond is then either pumped up to a storage dam for garden irrigation the garden absorbing the dissolved plant nutrients in the water), or discharged through a tussocked area into the forest (the tussocked

grass absorbing the plant nutrients in the water before they reach the forest.)

4.4.3 As all the water treated has been collected from the site (rainwater tanks), the volume discharged from the treatment system is similar to that which would enter the forest from the cleared area. Hence no damage is done by the volume of treated water entering the forest.

4.44 This system is gravity operated, simple to build and maintain, and if designed for six dwellings is equally effective for a lesser number ie. it can be used for a staged development.

4.4.5 Solid Waste Disposal will be handled according to the following method:

(i) All solid rubbish will be sorted into the categories of (a) compostable, (b) recyclable, (c) nondegradable, prior to disposal.

(ii) Compostable rubbish (kitchen scraps, garden cuttings etc.) will be collected and composted to humus to be used for garden.

(iii) Recyclable rubbish (Paper, Metals, Glass, Fabrics) will be collected in separate bins located at or near the community centre. From here it will be disposed of by a contractor to be engaged by the co-operative.

(iv) Non-degradable rubbish (plastics, building rubble, etc.) will be used as filling for building or road works where appropriate. Otherwise it will be collected and removed by the disposal contractor mentioned above.

4.5 **Roads and Tracks**

4.5.1 Roads and tracks within the property will be built and maintained by the co-operative.

4.5.2 Vehicle access tracks will be formed with a width just sufficient to allow two vehicles to pass, ie. 4 metres. Roads are designed to follow contours wherever possible and will be let into the slope of the hill to minimise disturbance to the visual landscape. Hard surfacing will be compacted crushed rock. Access roads to housing groups will terminate with a loop to allow fire trucks to turn easily in emergencies.

4.5.3 A system of pedestrian and cycle tracks linking housing groups and the community centre will be provided. A further system of walking tracks through the popular bush areas will be established to restrict intrusion into certain areas such as the delicate fern tree gullies on the east side of the mountain.

4.6 **Fire Protection**

4.6.1 The Mount Toole-Be-Wong site is in a high fire risk area. The area to be developed for housing and agriculture is on a plateau surrounded on all sides by very steep tree covered slopes. It is exposed to most winds. Discussions were therefore held with the

Country Fire Authority and the Forest Commission to establish their recommendation for the site and the proposed development.

4.6.2 Due to the steepness of these surrounding slopes, a bushfire would be almost impossible to control from the ground. The nature of the slopes also makes a programme of fuel reduction burning unfeasible. Therefore protection of the community from fire is to be maintained by keeping fire from spreading to the developed area on top of the mountain.

4.6.3 The methods to be used to achieve this protection are:

(i) Creation of a green break right around the edge of the forest where it abuts the cleared area. This involves the clearing of the ground litter and understorey from under the tall trees for a depth of at least 20 metres into the forest.

(ii) Control of potential fuel on the cleared area by ploughing around fences, grazing, and hay cutting or slashing.

(iii) The design of landscape around the housing groups to discourage the build up of ground litter and other hazardous situations.

(iv) The use of recycled waste water to maintain green garden areas around housing groups. The upper waste water storage dam also provides an emergency water supply for fire fighting and a place of refuge should the necessity arise.

(v) The design of dwellings to eliminate the entry of sparks into or under the buildings.

(vi) The design of roads to allow easy access and turning for fire trucks.

(vii) The availability of year-round spring fed water storage tanks and dams for emergency water supply for fire fighting.

4.7 **Reafforestation Proposal**

4.7.1 The Co-operative will establish a program of reafforestation and landscaping as shown in the accompanying drawings. The aims of the reafforestation program are:

(i) The restoration of areas scarred by previous clearing, logging and bushfires which are at present in an unsightly state and are detrimental to the landscape value of the mountain.

(ii) The restoration of the natural habitat for the abundant native fauna.

4.7.2 The method of reafforestation is as follows:

(i) Investigation of existing forest to determine the main tree types - see accompanying drawing

(ii) Investigation of site to determine areas in need of reafforestation.

The establishment of priority areas for the reafforestation programme as shown on the accompanying drawing.

(vi) The eradication of any rabbits - this to be carried out in co-operation with the Lands Department.

(v) The slashing back of bracken regrowth.

(vi) The planting of young trees in tubes (obtained from the Forest Commission) in stands of Mountain Ash and Messmate Stringbark Eucalyptus in areas of appropriate soil depth at a density of 100 to 120 trees per acre.

4.8 **Landscape Proposals**

4.8.1 In addition to the general reafforestation program a specific landscaping proposal will be implemented in the areas where development will occur with the aims of:

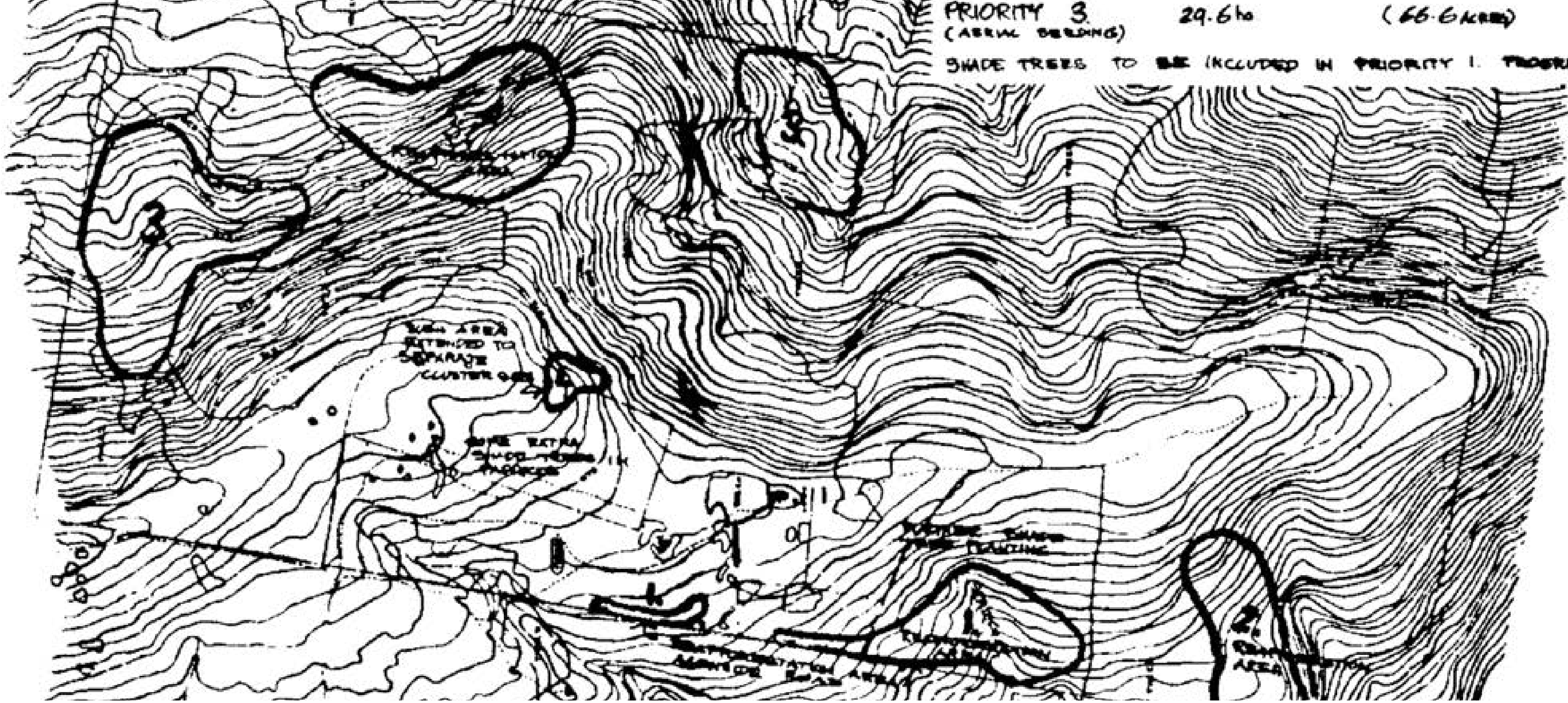
(i) The creation of visual barriers between housing groups and to camouflage the big distance views of development on the site where existing forest areas have been removed.

(ii) Providing a visual separation between the site and the existing boundary road on the west side.

(iii) The careful placement of shade trees in the areas used as grazing and agriculture to protect and enhance the close landscape value of the site.

(iv) Special treatment of proposed roads on the property to minimize their impact eg. letting the roads into the slope of the hill and placement of dumps of trees along sections of the road to add interest.

(v) Detailed landscaping around and within housing groups so that all development will blend in with the surrounding bush.


PRIORITY 3.
(AERIAL SEEDING)
29.6 ha
(66.6 ACRES)
SHADE TREES TO BE INCLUDED IN PRIORITY 1.

4.9 **Management Of Conservation Areas**

4.9.1 The co-operative wishes to declare the majority of the bush area as a private fauna and flora reserve. The following rules and policies have been adopted in order to protect this reserve. These rules have been based on these proposed by the draft report 'The Residential Conservation Zone' prepared for a symposium at the Australian Conservation Foundation, August, 1974. Subject to viewing the final legalisation the co-op would be very interested in considering supporting the rezoning of their land and if possible the adjoining land of the mountain as a Residential Conservation Zone.

4.9.2

i. The banning of dogs and cats on the site. The movement of other domestic animals including horses, donkeys, cows, pigs, goats, sheep and fowls is to be restricted to the areas of the site fenced.

ii. A firm declaration on the policy of group housing on the site indicated on the accompanying drawings. Within the groups controls on siting, materials and colour of buildings and structures will be established so as to fit them into the natural environment.

iii. Measures will be introduced to limit access to the bush. These measures include the establishment of walking tracks around the fern tree gullies, the building of walking and bicycle tracks linking housing groups and the community centre, and the banning of human access to certain delicate areas of the bush.

iv. Reafforestation of areas as shown in the accompanying drawing. These areas had been cleared completely or logged or badly damaged by past bushfires and detract severely from the landscape value of the mountain.

v. Provision for the satisfactory disposal of waste as outlined earlier in this section.

vi. The limitation of the extraction of stone, soil or other minerals to Co-operative use within the property. (It should be noted that the extractive industries permit for the southern portion of the -property will not be taken up while the Co-operative is able to carry out its aims on Mt. Toole Be Wong-as set out in this report)

vii. The sitting of roads to follow contours whenever possible.

viii. Restrictions on clearing of existing trees and understorey except for cases such Is the clearing of understorey for a depth of 20 metres around the proposed housing group sites as required for fire control measures.

ix. Control on all earthworks for building or other purposes so that they do not disturb the aesthetic natural landscape value of the site.

5. DETAILS OF PERMIT SOUGHT

5.1.1 A planning permit is sought for the construction of a total of 30 dwellings in 6 groups of from 4 - 6 dwellings per group. The permit would be subject to the following conditions:

(a) All buildings will comply with the Uniform Building Regulations of Victoria and the relevant by-laws of the Healesville Shire Council.

A building permit will be sought for each separate dwelling structure, and for each other building and for all other works or alterations which ordinarily require a building permit from the council. Before proceeding to Council the Co-operative will see all building applications by members to see if they fulfill the requirements of non-reflecting, natural materials in sympathy with the natural environment etc.

(b) The Co-operative will be responsible for

(i) The construction and maintenance of all roads and tracks on the co-operative's land.

(ii) The installation and maintenance of all water supply facilities required on its land.

(iii) The installation and maintenance of all waste disposal facilities required on its land in accordance with the Health Act and Healesville Shire Council requirements.

(iv) The implementation and maintenance of fire protection measures as approved by the Country Fire Authority.