

Clearing of native vegetation on Melbourne Location 3927, Shire of Dandaragan

Mr Trevor Naley

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

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Summary and recommendations

This report provides the advice and recommendations of the Environmental Protection Authority (EPA) to the Minister for the Environment and Heritage on two proposals to clear native vegetation for agricultural purposes on Melbourne Location 3927 within the Shire of Dandaragan. It is intended that the cleared land resulting from both proposals will be used for the purposes of horticulture and grazing.

The first proposal was for clearing of approximately 142 hectares of native vegetation in the north western corner of the property. The timing of the referral of the this proposal coincided with the period of introduction of the Memorandum of Understanding (MOU) for the Protection of Native Vegetation on Private Land. As a result of this, and on the basis of other information which subsequently became available on the potential impacts of the proposal and their possible management, the EPA did not require the proponent to prepare an environmental review for the proposal. The first proposal has therefore been assessed on the basis of available information and the advice of relevant government agencies.

The policy context for consideration of clearing proposals has undergone significant change since the first proposal was referred. The EPA has taken this into account in its final recommendations to the Minister for the Environment and Heritage on the first proposal.

More recently however, and during the preparation of the EPA's report on the first proposal. Mr Naley submitted a second Proposal, involving a proposal to clear a further 540 hectares of native vegetation. When added to the area of the first proposal, this proposal would result in a total area of clearing of 682 hectares, leaving 125 hectares (7.5% of the property) under native vegetation after clearing. The second proposal was also referred to the EPA and the level of assessment for this proposal was set at 'Formal Under Part IV' in March 2002.

The second proposal has been assessed on the basis of the EPA's current position and government policy on the protection of native vegetation.

Relevant environmental factors

Based on the available information, it is the EPA's opinion that the following are the environmental factors relevant to the proposals requiring detailed evaluation.

- a) Nature conservation and biodiversity; and
- b) Water quality and conservation values of the Hill River.

These are discussed in Section 4 of this report.

Conclusion

The EPA has considered two proposals by the proponent to clear native vegetation on Melbourne Location 3927.

The cumulative impacts of land clearing in the agricultural area, as described in the EPA's Position Statement Number 2 are such that the clearing of any of the remaining native vegetation on Melbourne Location 3927, which lies within the agricultural area, would normally be regarded as environmentally unacceptable.

As discussed in Section 3.2 of this report, the timing of the referral of the first proposal was such that the EPA has considered and made an assessment of the environmental factors relevant to the proposal, however, the second proposal has been considered in view of the EPA's current position on clearing of native vegetation in the agricultural area.

First (northern) proposal

The first (northern) proposal referred to the EPA relates to a 142 hectare area of native vegetation adjacent to the Hill River.

Taking into account the particular characteristics and location of this proposal and relevant technical information and advice, the EPA has decided that the proposal should be judged to be environmentally acceptable, provided the area within which clearing is permitted does not exceed the area shown in Figure 4 and there is satisfactory implementation by the proponent of the recommended conditions set out in Appendix 2.

In view of the need to protect the nature conservation and water quality values of the Hill River, a 200 metre wide buffer should be retained between the alluvial soils of the Hill River and the proposed clearing, as illustrated in Figure 3 with the area of permitted clearing as shown indicatively in Figure 4 if the proposal is approved for implementation. In order to ensure that this buffer is effective, this area would need to be fenced and included within an Agreement to Reserve under the provisions of the Soil and Land Conservation Act, or protected through an alternative conservation mechanism.

The EPA understands that the retention of this buffer would reduce the area of vegetation that could be cleared under this proposal to 134 ha (approximately 94% of the area proposed for clearing) and would result in approximately 673 hectares or 83% of the current area of native vegetation on the property being retained.

The EPA has concluded that the clearing associated with this proposal is unlikely to affect plant communities that are poorly conserved or inadequately represented within existing conservation reserves and is unlikely to significantly affect the contribution of native vegetation to nature conservation and biodiversity in the local area.

However, as there is a possibility that significant flora may occur within the proposed clearing area, the proponent should be required to engage a botanist to undertake an intensive search of any areas of shallow limestone within the permitted clearing area for significant flora, particularly *Eucalyptus argutifolia* and associated taxa, prior to any clearing, to ensure that the objectives of the *Wildlife Conservation Act 1950* can be met. If significant flora are identified during this survey there should be a requirement for the proponent to prepare and implement a management plan for avoiding or mitigating the impacts of the proposal on any significant flora detected. This plan should be developed to the requirements of the Minister for the Environment and Heritage, on advice from the Department of Conservation & Land Management (CALM).

Second (south eastern) proposal

The second proposal is for clearing of 540 hectares, the majority of the large native vegetation remnant on the south eastern side of Location 3927. The EPA considers that in view of the need to address the cumulative impacts of broad-scale clearing on native vegetation and biodiversity generally, and in view of the fact that clearing of this larger remnant would significantly reduce the amount of native vegetation on the property and its capacity to maintain linkage and connectivity between areas of native vegetation in the locality, the remnant should be retained and protected for the long term and not cleared. The EPA is therefore of the view that the second (south eastern) proposal is environmentally unacceptable and should not proceed.

Recommendations

Section 44 of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for the Environment on the environmental factors relevant to the proposal and on the conditions and procedures to which the proposal should be subject, if implemented. In addition, the EPA may make recommendations as it sees fit.

The EPA submits the following recommendations to the Minister for the Environment and Heritage:

1. That the Minister notes that this report is the report and recommendations of the EPA in relation to two separate proposals for clearing of native vegetation on Melbourne Location 3927 that were referred to the EPA in 1998 and 2002. The two proposals are shown in figure 2. The first (northern) proposal is for clearing of 142 hectares of native vegetation adjacent to the Hill River. The second (south eastern) proposal is for clearing of approximately 540 hectares of native vegetation within the large area of vegetation in the south eastern section of the property.
2. That the Minister considers the report on the relevant environmental factors of :
 - a) Nature conservation and biodiversity; and
 - b) Water quality and conservation values of the Hill River,as set out in Section 4 of this report.
3. That the Minister notes that although the EPA's current position is that from an environmental perspective, further clearing of native vegetation in the agricultural area for agricultural purposes is no longer appropriate, the EPA has taken into consideration the prevailing policy at the time that the first (northern) proposal was lodged and relevant technical information and advice, in its assessment of environmental acceptability of that proposal.
4. That the Minister notes that in relation to the first (northern) proposal, the EPA considers that in order to protect the nature conservation and water quality values of the Hill River a 200 metre wide buffer should be retained between the alluvial soils of the Hill River and the proposed clearing, as illustrated in Figures 3 and 4 of this assessment report if the proposal is approved for implementation. The EPA considers that the buffer should be fenced and included within an ATR under the provisions of the Soil and Land Conservation Act or other conservation mechanism, to ensure the long term protection of the buffer vegetation.

5. That the Minister notes that the EPA has concluded that the first (northern) proposal should be judged to be environmentally acceptable provided the area within which clearing is permitted does not exceed the area shown in Figure 4 and there is satisfactory implementation, by the proponent, of the recommended conditions set out in Appendix 2. The EPA is aware that in reaching this conclusion, the total area of vegetation within which clearing would be permitted will not exceed 134 hectares.
6. That, in relation to implementation of the first (northern) proposal, the Minister issues a statement that the proposal may be implemented imposing the conditions and procedures recommended in Appendix 2 of this report.
7. That the Minister notes that EPA has formed the view that the second (south eastern) proposal is environmentally unacceptable and should not proceed.
8. That the Minister not issue a statement that the second (south eastern) proposal may be implemented.

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1. Introduction and background

This report provides the advice and recommendations of the Environmental Protection Authority (EPA) to the Minister for the Environment and Heritage on two proposals to clear native vegetation for agricultural purposes on Melbourne Location 3927 (Location 3927) within the Shire of Dandaragan. It is intended that the cleared land resulting from both proposals will be used for the purposes of horticulture and grazing.

The first proposal discussed in this report resulted from the proponent, Mr T Naley, submitting a Notice of Intent to Clear (NOIC) for approximately 197 hectares of native vegetation in accordance with the *Soil and Land Conservation Act 1950* (the Soil and Land Conservation Act) in April 1997. At that time, the area of clearing was clarified with the proponent and accurately measured and found to be 142 hectares, rather than 197 hectares as set out in the NOIC. The proposal was forwarded to the Level 3 'Inter Agency Working Group (IAWG)' for consideration in accordance with the *Memorandum of Understanding for the Protection of Remnant Vegetation on Private Land in the Agricultural Region of Western Australia* (MoU, 1997). The IAWG considered that there was potential for the proposal to impact on the biodiversity values of native vegetation within the Geraldton Sandplains Bioregion in the vicinity of Mt Lesueur, and may also impact on the water quality and conservation values of the Hill River through the proposed horticultural activities. The EPA determined that the potential environmental impacts were sufficient for the proposal to be formally assessed under the provisions of Part IV of the *Environmental Protection Act 1986* (the EP Act) in April 1998.

The timing of that referral coincided with the period of introduction of the MOU for the Protection of Native Vegetation on Private Land. As a result of this, and on the basis of other information which subsequently became available on the potential impacts of the proposal and their possible management, the EPA did not require the proponent to prepare an environmental review for the proposal. The proposal has therefore been assessed on the basis of available information.

The policy context for consideration of clearing proposals has undergone significant change since the first proposal was referred. The EPA has taken this into account in its final recommendations to the Minister for the Environment and Heritage on the first proposal.

More recently however, and during the preparation of the EPA's report on the first proposal, Mr Naley submitted a NOIC to the Commissioner to clear a further 600 hectares (540 hectares as measured by the Department of Agriculture). This second proposal was also referred to the EPA and the level of assessment for this proposal was set at 'Formal Under Part IV' in March 2002. The second proposal has been assessed on the basis of the EPA's current position and government policy on the protection of native vegetation.

Further details of the proposals are presented in Section 2 of this report. Section 3 discusses the strategic context for consideration of the proposals and Section 4 discusses the environmental factors relevant to both proposals. The environmental conditions to which the proposals should be subject, if the Minister determines that they may be implemented, are set out in Section 5. Section 6 presents the EPA's conclusions, and Section 7 the EPA's recommendations.

2. The proposals

Melbourne Location 3927 is approximately 1676 hectares (ha) in area, and is located approximately 10 kilometres (km) east of the town of Jurien on Cairn Road within the Shire of Dandaragan. The locality of the property is shown in Figure 1. Melbourne Location 3927 abuts C Class Crown Reserve 33287 immediately to the west, which is vested with the Conservation Commission of Western Australia (CCWA) for the purposes of 'Conservation of Flora and Fauna'. Crown Reserve 33048 is located on the north side of the Hill River, immediately north of Location 3927. This reserve is currently listed for 'Government Purposes' but CALM has advised that it is seeking to acquire Reserve 33048 for conservation purposes.

Based on information provided with the initial NOIC, the Department of Agriculture initially estimated that approximately 917 ha (55%) of Location 3927 was vegetated. During the EPA's assessment, it has subsequently been determined, through more detailed investigation of vegetation on the property, that some areas of property, mapped as supporting native vegetation, have previously been cleared. The most recent estimate is that 807 hectares of native vegetation (48% of the property) currently supports native vegetation.

For the first proposal, the proponent's NOIC of 1998 advised of the intention to clear approximately 142 ha of native vegetation. If this proposal was allowed to proceed, a total of 665 hectares (40% of the property area) would remain under native vegetation after clearing.

For the second proposal, the proponent's 2001 NOIC, indicated an intention to clear a further 600 hectares in the south eastern section of the property. The Department of Agriculture has subsequently clarified the boundary of proposed clearing and provided a more accurate estimate of the clearing area as 540 hectares. If this proposal (alone) was allowed to proceed, a total of 267 hectares (16% of the property area) would remain under native vegetation after clearing.

If both proposals were allowed to proceed, the total area of clearing would be 682 hectares, leaving 125 hectares (7.5% of the property) under native vegetation after clearing.

Table 1 presents the key characteristics of the two proposals in relation to affected vegetation types and the Department of Agriculture's Soil / Landscape Systems.

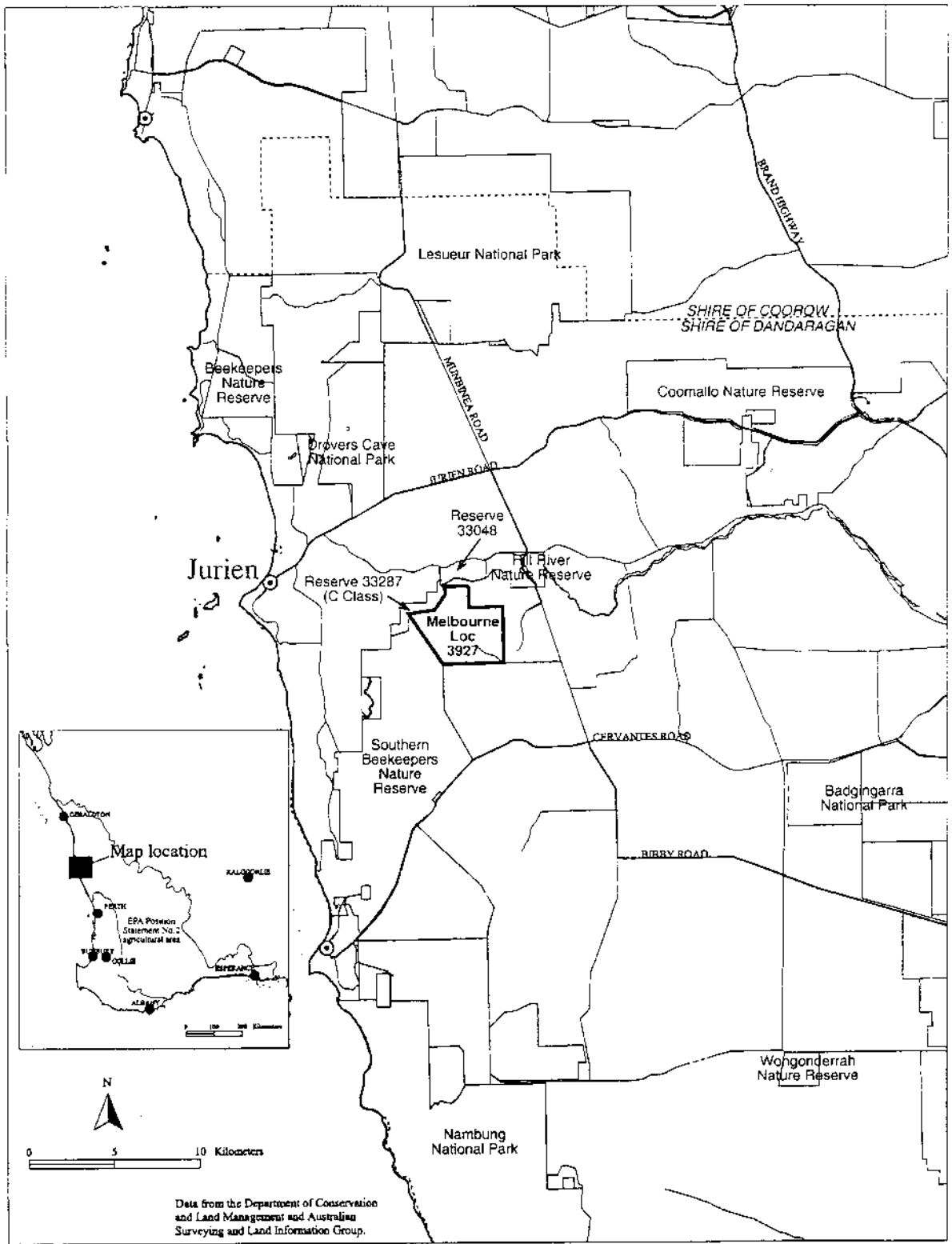


Figure 1: Locality map for Melbourne Location 3927

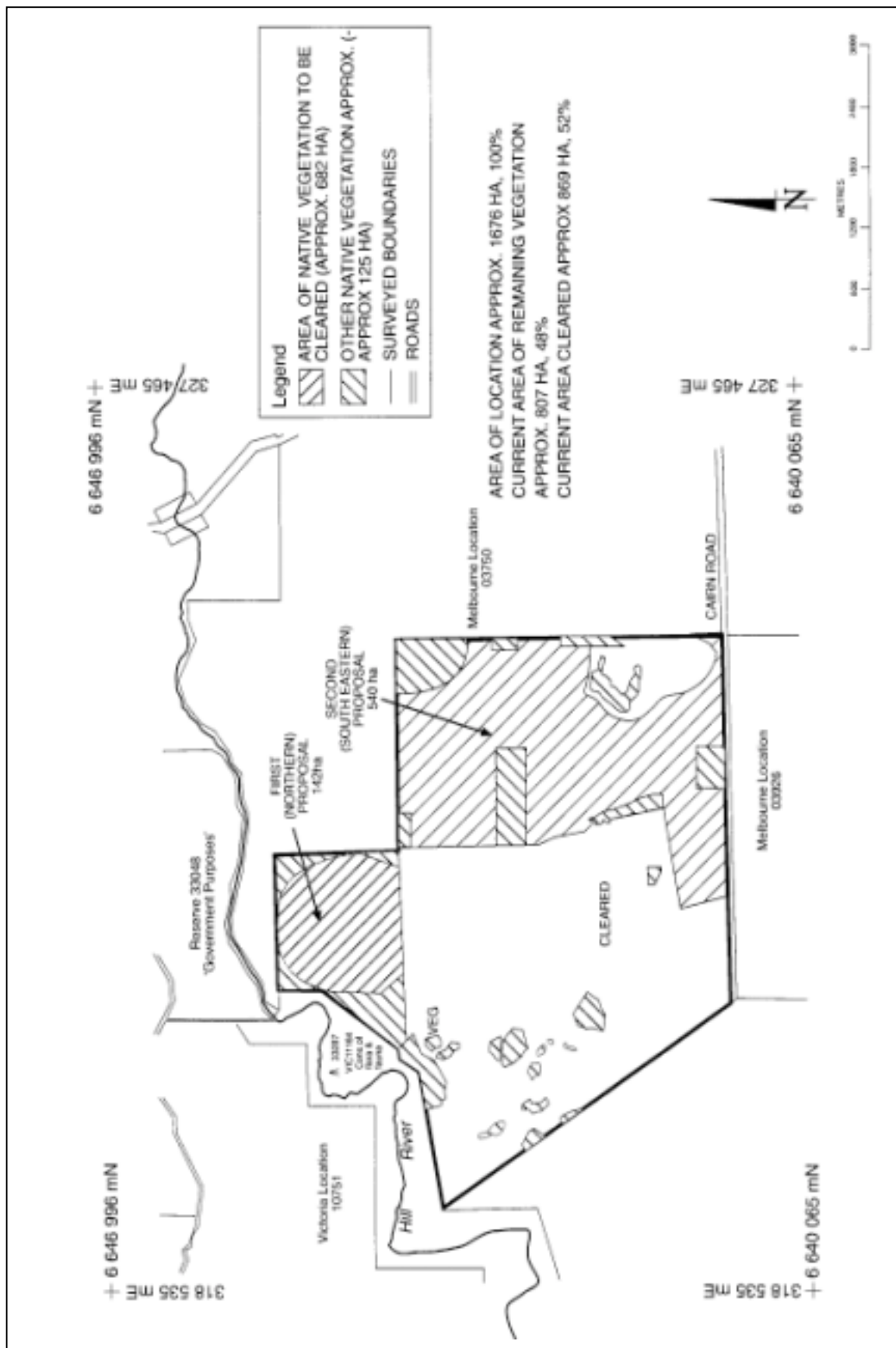


Figure 2: Clearing Proposals: Melbourn Location 3927

Table 1. Summary of key proposal characteristics:

Element	Description	
	NOIC No 1 (1998)	NOIC No 2 (January 2002)
Total area of property	Approximately 1676 ha	Approximately 1676 ha
Area of property currently uncleared	Approximately 807 ha (48% of the property area)	Approximately 807 ha (48% of the property area)
Area proposed to be cleared (estimated by DoA)	Approximately 142 ha (8.5% of the property area)	Approximately 540ha (33% of the property area)
Area of native vegetation estimated remaining after proposed clearing	Approximately 665 ha (40% of the property)	Approximately 267 hectares (16% of the property)
Area of native vegetation to be protected under an Agreement To Reserve (ATR) or other mechanism	0 ha	0 ha
Purpose of clearing	Horticulture and grazing	Horticulture and grazing
Condition of vegetation	The DoA's Level 2 report on the NOIC indicates that the vegetation is 'intact' and that there is little evidence of invasive weed species	The DoA's Level 2 report on the NOIC indicates that the vegetation is 'intact' and that there is little evidence of invasive weed species
Mapped description of the Beard vegetation type to be cleared	<i>Shrublands; Scrub Heath</i> (from CALM & DoA GIS data)	<i>Shrublands; Scrub Heath</i> (from CALM & DoA GIS data)
Total mapped extent of Beard vegetation type now supporting woody vegetation (any condition)	Approximately 822,242 ha or 80 % of Pre-European extent (CALM, DoA GIS data)	Approximately 822,242 ha or 80 % of Pre-European extent (CALM, DoA GIS data)
Total representation in (IUCN Category I to IV) reserves of the Beard vegetation type to be cleared	Approximately 287,800 ha or 28% of the estimated Pre-European extent (Hopkins et al, 1996)	Approximately 287,800 ha or 28% of the estimated Pre-European extent (Hopkins et al, 1996)
Mapped Soil / Landscape System (DoA data)	<i>Spearwood System</i>	<i>Spearwood System</i>
Total mapped extent of Soil / Landscape System now supporting woody vegetation (any condition)	Approximately 162,750 ha or 60% of the total area of the System (DoA GIS data)	Approximately 162,750 ha or 60% of the total area of the System (DoA GIS data)
Total representation in (IUCN Category I to IV) reserves, of Soil / Landscape System affected (northern occurrence north of Lancelin)	Approximately 12,800 ha or 40% of the northern occurrence of the System (CALM, DoA GIS data)	Approximately 12,800 ha or 40% of the northern occurrence of the System (CALM, DoA GIS data)

Abbreviations: CALM: Department of Conservation & Land Management
 DEP: Department of Environmental Protection
 DoA: Department of Agriculture

GIS: Geographic Information System
 IUCN: International Union for the Conservation of Nature

3. Strategic context

3.1 The development of Government policy on clearing of native vegetation

It is now well recognised that broad-scale land clearing and consequential salinity have had a dramatic adverse effect on biodiversity in the agricultural area through the direct loss of vegetation communities and plant species, and the associated loss of mammals, birds, and other animals which depend upon large enough areas of healthy bush for food and shelter. These impacts have been reported in both the State and Commonwealth State of the Environment reporting (Government of Western Australian 1998, Commonwealth of Australia, 1998a).

In response to impacts on biological diversity and nature conservation, as well as land and water degradation, the State and Commonwealth Governments have over recent years developed and implemented various policy positions and programs to provide a strategic context for the protection of remnant vegetation.

These include:

- *Western Australian State Government position on land clearing (Government of Western Australia, 1995);*
- *National Strategy for the Conservation of Australia's Biological Diversity (Commonwealth of Australia 1996a);*
- *Memorandum of Understanding for the Protection of Native Vegetation on Private Land in the Agricultural Region of Western Australia (MOU 1997);*
- *Natural Heritage Trust partnership agreement, Western Australia (Commonwealth of Australia 1997);*
- *Commonwealth State of the Environment report (Commonwealth of Australia 1996b);*
- *Western Australian State of the Environment report (Government of Western Australia, 1998);*
- *WA Salinity Strategy (Government of Western Australia, 2000); and*
- *National Greenhouse Strategy (Commonwealth of Australia, 1998b).*

In addition, the Western Australian Government's 2001 election policy statements included statements on agricultural land clearing as follows:

- The clearing of remnant native vegetation is one of the main pressures on biodiversity as well as contributing to salinity and other forms of land degradation.
- Clearing native vegetation within the agricultural area is generally not acceptable other than relatively small areas where alternative mechanisms for biodiversity are addressed.
- Applications for clearing should be assessed on their scientific merits.
- Preventing farmers from clearing remnant native vegetation raises issues of equity which must be addressed.

The most recent development in Government Policy on protection of native vegetation is the agreed document entitled *National Objectives and Targets for Biodiversity Conservation*

Stemming from the National Strategy for the Conservation of Australia's biodiversity 2001-2005 (Commonwealth of Australia, 2001). Within this document, the Commonwealth Government and the majority of the States, including Western Australia, have agreed to pursue the target of ensuring that all jurisdictions have clearing controls in place that will have the effect of reducing the net national rate of land clearance to zero.

While the EPA recognises the importance of the resolution of equity issues relating to farmer proponents, it is unable to consider these issues in undertaking environmental assessments under Part IV of the *Environmental Protection Act 1986*.

3.2 The EPA's position on environmental protection of native vegetation

The EPA has assessed a number of land clearing proposals over recent years.

Based on:

- the issues arising from information presented during these assessments;
- the strategic framework provided by government policy positions and programs; and
- general scientific information which has become available on the potential cumulative impacts of broadscale clearing on the environment,

the EPA has developed Position Statement Number 2 regarding 'Environmental Protection of Native Vegetation in Western Australian' (EPA, 2000).

Specifically in relation to the 'Agricultural area', as illustrated in Figure 1 of Position Statement No 2, the EPA's current position on clearing in the region includes the following:

1. *Significant clearing of native vegetation has already occurred on agricultural land, and this has led to a reduction in biodiversity and increase in land salinisation. Accordingly, from an environmental perspective any further reduction in native vegetation through clearing for agriculture cannot be supported.*
2. *All existing remnant native vegetation should be protected from passive clearing through, for example, grazing by stock or clearing by other means such as use of chemicals including fertilisers.*
3. *All existing remnant native vegetation should be actively managed by landholders and managers so as to maintain environmental values.*
4. *Because of the extent of over clearing in the agricultural area, development of revegetation strategies at a landscape level, including the provision of stepping stones, linkages and corridors of native vegetation should be a priority.*
5. *Clearing of deep rooted native vegetation for replacement with non native deep rooted crops (eg Tagasaste or bluegums) is generally not regarded as acceptable and these alternative deep rooted crops should be planted on already cleared land." (EPA, 2000)*

The EPA recognises that this position extends beyond the State Government position of 1995, which removed the presumed right to clear native vegetation in landscapes containing less than 20% of the original vegetation. The criterion of 20% of the landscape related primarily to land degradation impacts and does not adequately provide for nature conservation and biological diversity considerations. Understanding of the need to protect remnant vegetation for nature conservation and biological diversity values has advanced since the 1995 State Government position as reflected in the policy and strategy initiatives listed above.

Taking into account the EPA's Position Statement and the cumulative impacts of land clearing in the agricultural area, as described in the Position Statement, the two proposals for clearing of native vegetation on Melbourne Location 3927 would ordinarily be regarded by the EPA as being environmentally unacceptable. However in the present case, the EPA is aware that the subject property is located in an area where extensive areas of native vegetation are included in nature conservation reserves, ensuring protection of a relatively high proportion of many of the ecosystems which originally occurred in the area. Additionally, while the location of the property lies within the Geraldton Sandplains bioregion, which is well known for having very high nature conservation and biological diversity values, the property is located away from the areas within the region that are of highest significance (eg the Mt Lesueur – Eneabba area). Finally the EPA is aware that the first proposal was referred for assessment well before the release of Bulletin 966 and the Position Statement and as previously discussed, has taken into account the previous policy framework in its consideration of that proposal.

The EPA has therefore decided to consider the first proposal on its individual merits and has made an assessment of the environmental factors relevant to both proposals, as discussed in Section 4 of this report.

4. Environmental factors

4.1 Relevant environmental factors

Section 44 of the *Environmental Protection Act 1986* requires the EPA to report to the Minister on the environmental factors relevant to the proposal and on the conditions and procedures to which the proposals should be subject, if implemented. In addition, the EPA may make recommendations as it sees fit.

This report has been prepared for the Minister for the Environment and Heritage on the basis of information provided by staff of relevant government agencies in the absence of any technical information on potential environmental impacts being required to be provided by the proponent.

Based on the available information, it is the EPA's opinion that the following are the environmental factors relevant to the two proposals, which require detailed evaluation in this report:

- a) Nature conservation and biodiversity; and
- b) Water quality and conservation values of the Hill River.

These factors are discussed in Sections 4.2 and 4.3 of this report.

4.2 Nature conservation and maintenance of biodiversity

Description

This environmental factor is relevant to both the first (northern) proposal and the second (south eastern) proposal. Considerations relevant to this factor include the conservation status and representation of plant communities and the effect of the proposal on the viability and function of remnant vegetation in the local landscape impacts on significant flora.

Conservation status and representation of affected plant communities

No botanical survey has been carried out for either of the two proposals. However, the vegetation types affected by the two proposals are similar, having been mapped by Beard (1979) as *Shrublands Scrub Heath*. Based on analysis of available data from government agencies on the Department of Environmental Protection (DEP)'s Geographic Information System, approximately 80% of the Pre-European extent of this vegetation type remains overall. Approximately 28% of the original extent of this vegetation type is protected in conservation reserves.

Within the Geraldton Sandplains Bioregion, the Department of Agriculture's geographic database of Soil / Landscape Systems also provides indicative information on the distribution of plant communities. Within this region, the distribution of plant communities (defined in terms of floristic composition) has been demonstrated to be closely related to Department of Agriculture's soil-landscape mapping (Griffin pers comm). This mapping is more detailed than Beard's vegetation and applies to cleared and uncleared areas equally well. Therefore the level of protection of native vegetation occurring within the area covered by each Soil / Landscape System provides an indicator of the level of biodiversity conservation which is complementary to that provided by evaluation using Beard (1979) vegetation types.

Melbourne Location 3927 is located within the Spearwood Soil / Landscape System, which occurs in a discontinuous belt along the coast from Dunsborough to Jurien. The northern extent of the System is interrupted by a belt of the Quindalup Soil / Landscape System between approximately Lancelin and Cervantes.

Approximately 60% of the total area of the Spearwood Soil / Landscape System now supports woody vegetation. Additionally, approximately 40% of the northern occurrence of the Spearwood System (between Cervantes and Jurien) occurs within secure nature conservation reserves (CALM, Department of Agriculture GIS data). Although there are uncertainties in the quality and conservation viability of vegetation identified by the woody vegetation dataset, it is reasonably likely that the level of native vegetation with viability for long term conservation would be well above the 30% minimum threshold level below which species loss appears to accelerate exponentially at an ecosystem level, as referred to in EPA Position Statement No 2.

The EPA notes that the mapping of Beard vegetation types and Soil / Landscape Systems is of a broad nature and that information regarding the type and condition of the vegetation proposed to be cleared, or vegetation in the general region at the association or plant community level is incomplete. It is therefore not possible to reach a definitive conclusion as to whether or not any of plant communities occurring on Location 3927 are adequately represented in the region.

Based on the available information as referred to in the preceding discussion however, and taking into account the area of the Spearwood Soil / Landscape System and the *Shrublands Scrub Heath* vegetation type remaining overall and represented in secure conservation reserves, it appears unlikely that the plant communities proposed to be cleared would be poorly conserved or represented within existing conservation reserves.

Viability and function of native vegetation in the local landscape

First (Northern) proposal

Extensive clearing of native vegetation has taken place in the agricultural area, as referred to in EPA Position Statement No 2. Broad scale clearing of native vegetation on the property would further contribute to cumulative loss of biodiversity and ecological function in the agricultural area.

The area of native vegetation proposed for clearing in the first (northern) proposal is somewhat disjunct from the main block of vegetation on the property located to the south east. Its long-term viability and potential to make a significant additional contribution to the level of biodiversity conservation in the local area is likely to be limited. However, the proposed clearing is adjacent to a corridor of native vegetation on Crown Reserves and Private Property along the Hill River. The clearing also affects native vegetation occurring on the alluvial soils associated with the Hill River. Clearing may therefore affect the viability of the river as an ecological linkage or corridor of native vegetation and habitat facilitating the movement of fauna and connectivity between populations of plants and other biota. This is discussed in further detail in Section 4.3.

As the area of clearing is a relatively low proportion (<20%) of the vegetation remaining on the property, the first (northern) proposal is unlikely to significantly affect the viability of remnant vegetation in the local area. However, as discussed in Section 4.3, the vegetation associated with the alluvial soils adjacent to the Hill River should be given long term protection under the terms of an Agreement to Reserve (ATR) under the provisions of the Soil and Land Conservation Act, or through some other conservation mechanism because of the importance of retaining a wide corridor of native vegetation along the Hill River. Such a corridor may contribute to the maintenance of flora and faunal values of nearby conservation reserves including the Hill River Nature Reserve and Southern Beekeepers Nature Reserve through its capacity to act as an ecological linkage between these areas.

Second (south eastern) proposal

The larger area of native vegetation in the south east portion of the property would if retained, be likely to remain viable over time due to its size could contribute significantly to biodiversity conservation in the locality if left intact as a whole block. The second (south eastern) proposal involves clearing of the majority of this remnant, significantly reducing the amount of native vegetation on the property and essentially removing the capacity of this large area to act as an effective ecological linkage between the native vegetation areas of native vegetation along the Hill River and native vegetation remnants to the south and east of the property.

Other native vegetation on Location 3927

The very small remnant areas of vegetation in the south west corner of Location 3927, which are shown in Figure 2, appear to be vulnerable to outside disturbance and in the absence of intensive management are likely to be too small to remain viable in the long term.

Impacts on significant flora

Location 3927 is located in the Geraldton Sandplains Bioregion (Thackway & Cresswell, 1997) which is recognised as having a high level of occurrence of significant flora species.

No botanical survey has been carried out for the areas to be impacted by either of the two proposals. However, the Department of Conservation and Land Management (CALM) has advised that a population of the Declared Rare Flora *Eucalyptus argutifolia* is recorded in the locality of Location 3927 on the north side of the Hill River. There is a reasonable probability that this species would be present on Location 3927 if areas of outcropping limestone were present.

The current World Conservation Union (IUCN) conservation category of *Eucalyptus argutifolia*, as classified by the CALM Threatened Species Scientific Committee, is 'Vulnerable'. According to the IUCN definitions for conservation categories, this means that the taxon is considered to be 'facing a high risk of extinction in the wild'.

CALM's advice to the Level 3 Interagency Working Group in relation to the first 1998 proposal indicated that any limestone areas on the property should be either protected from any clearing or surveyed for the presence of significant flora. Subsequent to the advice provided to the Interagency Working Group, CALM has further advised that the taxonomy of the Hill River populations of *Eucalyptus argutifolia* has become subject to some uncertainty. The Hill River population may therefore be a rare hybrid of *Eucalyptus argutifolia* or a new taxon, further increasing its environmental significance.

Several other priority flora taxa were identified by CALM as being present in the Hill River area, but CALM's advice was there is currently insufficient habitat detail available for the property to determine the likelihood of their occurrence on the property.

During the EPA's assessment of the first (northern) proposal, further advice on the flora vegetation of Location 3927 was obtained from Mr Ted Griffin of the Department of Agriculture, a botanist with considerable background in flora surveys in the region who undertook a brief inspection of the first clearing area. Mr Griffin has advised that he concurs with advice provided by CALM, and that one priority species, *Oxal scalariformis*, is also known to be associated with limestone outcrops and is likely to be found in the vicinity of Location 3927. The EPA understands however, that this species is likely to be widespread on conservation lands in the region.

The EPA also understands that on the basis of Mr Griffin's preliminary inspection of the northern part of the property, there do not appear to be any significant areas of limestone outcrop within the area proposed to be cleared, and that therefore this area appears unlikely to contain any populations of *Eucalyptus argutifolia*. In view of this advice, it appears that the potential impacts of the first (northern) proposal on significant flora are likely to be manageable.

However, being cognisant of the requirement to apply the precautionary principle, the EPA is of the view that if clearing was to be permitted in relation to the northern proposal, the proponent should be required to engage a botanist to undertake an intensive prior search of any shallow limestone areas within clearing areas, for significant flora, particularly *Eucalyptus argutifolia* and associated taxa, to ensure that the objectives of the *Wildlife Conservation Act 1950* can be met.

The impact of the second proposal on significant flora is unknown but the location and size of this areas means that it has greater potential to support populations of significant flora and where present, to maintain these over the long term.

Assessment

General

On the basis of the information provided above, the EPA is of the view that the plant communities occurring within Location 3927 are unlikely to be poorly conserved or represented within existing conservation reserves.

However, because extensive clearing of native vegetation has taken place in the agricultural area, as referred to in EPA Position Statement No 2, broad scale clearing of native vegetation on the property would further contribute to cumulative loss of biodiversity and ecological function in the agricultural area.

First (northern) proposal

The first (northern) proposal is for clearing of 142 hectares of native vegetation. The proposal, as referred to the EPA, does not include an appropriate buffer on the vegetation associated with the alluvial soils of the Hill River. Long term protection should be provided to the vegetation associated with the alluvial soils adjacent to the Hill River (see Section 4.3 below) under the terms of an ATR or similar conservation mechanism. Additionally, if any clearing were to be permitted an intensive prior search of any areas of shallow limestone for significant flora (particularly *Eucalyptus argutifolia* and associated taxa) should be required, to ensure that the objectives of the *Wildlife Conservation Act 1950* can be met. If significant flora were identified during this survey, there should then be a requirement to prepare and implement a management plan for avoiding or mitigating the impacts of the proposal on any significant flora detected. Such a plan would need to be developed to the requirements of the Minister for the Environment and Heritage, on advice from CALM.

Second (south eastern) proposal

The EPA considers that in view of the need to address the cumulative impacts of broad-scale clearing on native vegetation and the fact that clearing of the larger south eastern remnant would significantly reduce the amount of native vegetation on the property and its capacity to maintain linkage and connectivity of areas of native vegetation in the locality, this larger vegetation remnant should be retained and protected for the long term and not cleared. The size and location of the area also means that it has significant potential as habitat for significant flora. Clearing of this large and potentially viable remnant would be inconsistent with the need to protect the viability and function of native vegetation in the local landscape and would increase the already significant cumulative impacts on native vegetation in the agricultural area. Further broad scale clearing of this nature would not therefore meet the EPA's objectives for nature conservation and maintenance of biodiversity and is considered environmentally unacceptable.

4.3 Water quality and conservation values of the Hill River

This environmental factor is relevant to the first (northern) proposal by Mr Naley which was referred to the EPA in 1998. It is not considered directly relevant to the second proposal which is located approximately 1 km from the Hill River.

Location 3927 is located immediately adjacent to the Hill River, as indicated in Figure 2. The Hill River downstream of Location 3927 passes through the Southern Beekeepers Nature Reserve and upstream the River traverses the Hill River Nature Reserve. Accordingly, the river and immediate surrounds should be considered as being of value for nature conservation (flora and fauna) values of the reserves, as well as for the maintenance and /or enhancement of the water quality and wetland ecosystem values.

In the Level 2 report on the NOIC (AgWA, 1997), the Department of Agriculture has advised that horticulture is likely to become a key industry in the Dandaragan Shire.

The proposed clearing and horticultural development associated with the first (northern) proposal is located immediately south of the Hill River. If this proposal was to be permitted, the clearing and subsequent horticultural activity has potential to impact on water quality within the Hill River, through the loss of native vegetation and increased use of fertilisers, herbicides and pesticides. The nature and extent of this impact would depend upon the type of soils on the site and adjacent areas and the degree of buffering of the Hill River from water movement provided by vegetation as well as a number of other biological factors.

The EPA is of the general view that in order for horticulture to be developed as a successful industry in the Jurien / Dandaragan area, best practice measures for design and management of horticultural enterprises will need to be further developed to ensure that sustainable levels of production are achieved while protecting environmental assets. Issues considered relevant to best practice include project design considerations such as buffers on waterways, available water resources for irrigation, nutrient and pesticide application and on-site water management. Adequate native vegetation buffers should be retained in order to provide precautionary protection of rivers and associated alluvial systems where adjacent land uses include nutrient intensive activities such as horticulture.

The first (northern) proposal does not incorporate any buffer other than the set-back to the Hill River afforded by the location of the property boundary. According to maps and Geographic Information System (GIS) data for the area, this varies between approximately 80 metres and 400 metres from the river channel.

In order to determine the potential for future horticulture associated with the first (northern) proposal to impact on the values of the Hill River, the EPA sought additional advice from the Department of Agriculture on the nature and extent of alluvial soils adjacent to the river at Location 3927. This information was provided to the EPA in the form of a short written report (AgWA, 1999). A copy of the soil map accompanying the report, which illustrates the extent of alluvial soils in the vicinity of the north eastern corner of the property is provided in Figure 3. The Department of Agriculture's report defines the extent of alluvial soils, and advises that these soils have a low capability for horticulture because of the high flooding and eutrophication risk.

The Department of Agriculture's report also advises that, to minimise the potential risk of nutrient and export from the property to the River, a 100 metre wide vegetated buffer is recommended up slope from alluvial soil units B and C. This vegetated buffer would also serve to reduce the risk of herbicide spray drift and reduce sediment transport to the Hill River in the event of overland flow. A dotted line indicating the extent of the buffer recommended by the Department of Agriculture is shown in Figure 3.

The EPA is of the view that in order for a riparian area to function effectively as an ecological linkage or corridor for flora and fauna within areas where agricultural clearing has occurred, a buffer width of at least 200 metres each side of the riparian area (defined by the presence of alluvial soils and associated plant species) should be retained in a vegetated state. This buffer should include protection of existing native vegetation where present, or be revegetated with suitable local native species. As indicated previously by the EPA in Position Statement No 2 (EPA, 2000), this is consistent with criteria being used in other states of Australia to assess land clearing proposals.

Assessment

The EPA has considered available information (including the information provided by the Department of Agriculture) in relation to this factor for the first (northern) proposal, which is located adjacent to the Hill River. The EPA is of the view that if the proposal was to be considered environmentally acceptable, a minimum 200 metre wide vegetated buffer would be required between the edge of the alluvial soils and the proposed clearing. The purpose of this buffer would be to maintain the ecological linkage (habitat and flora and fauna movement) values of the riverine vegetation associated with the Hill River, in addition to providing an adequate riverine buffer for the protection of water quality.

The EPA has therefore concluded that the first (northern) proposal would be unlikely to significantly impact on the water quality and conservation values of the Hill River if a 200 metre buffer incorporating existing native vegetation was required between the proposed clearing and the alluvial soils adjacent to the Hill River with the indicative boundary as illustrated in Figure 4.

No clearing should be undertaken within the recommended buffer, and the area should be fenced and included within an ATR under the provisions of the Soil and Land Conservation Act or protected through an alternative conservation mechanism to ensure the long term protection of the vegetation. The EPA recognises that this would result in the maximum area within which clearing would be permitted as part of the first (northern) proposal being reduced from 142 ha to 134 ha.

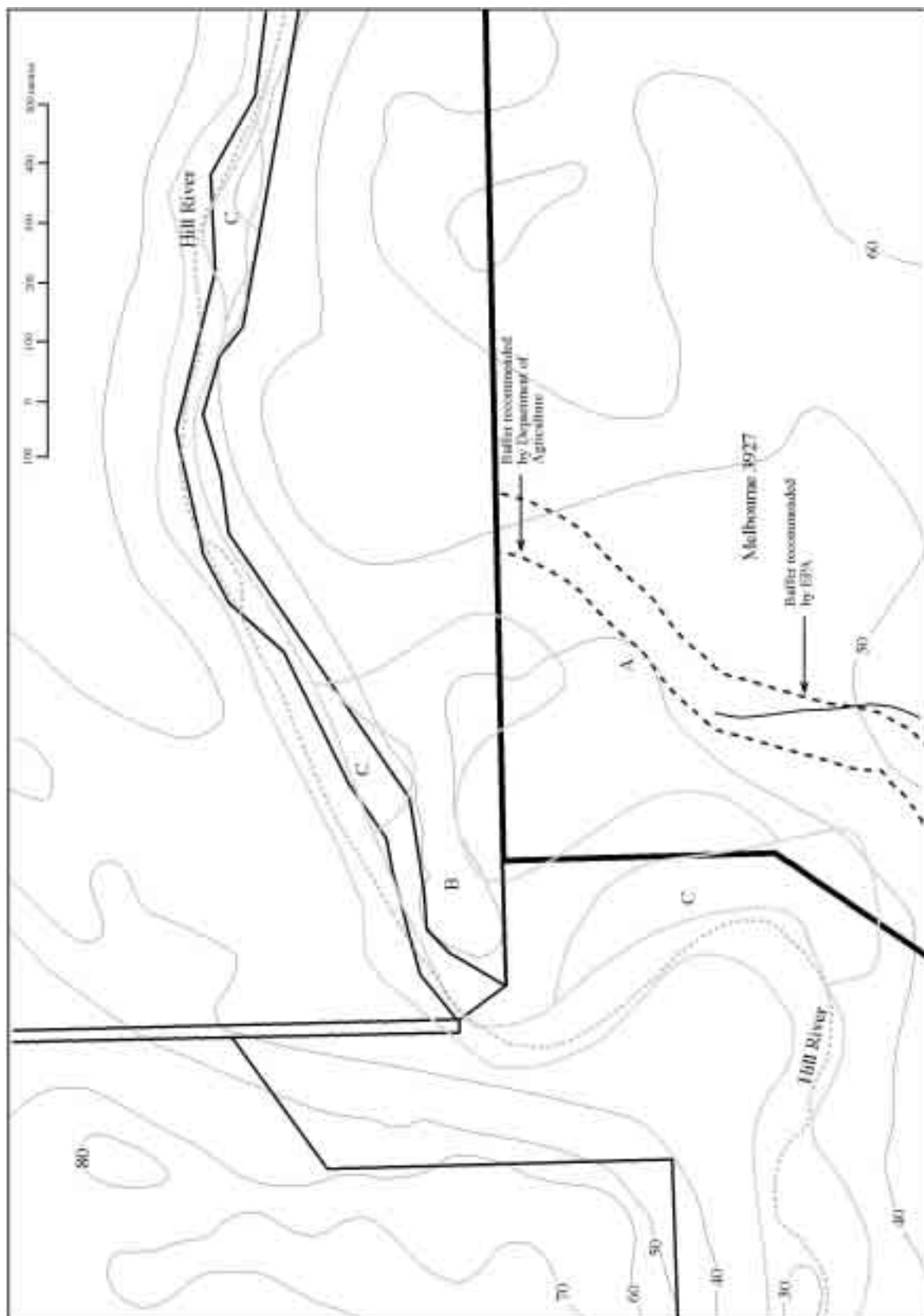


Figure 3. Soil types of Pt Melbourne 3927 (as identified by the Department of Agriculture).

5. Conditions

Section 44 of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for the Environment on the environmental factors relevant to proposals and on the conditions and procedures to which the proposals should be subject, if implemented. In addition, the EPA may make recommendations as it sees fit.

5.1 Recommended conditions

Having considered the available information on the impacts of the first (northern) proposal as described in this report, the EPA has developed a set of conditions, which the EPA recommends be imposed if the first (northern) proposal by Mr Naley to clear native vegetation on Melbourne Location 3927 for horticulture and grazing is approved for implementation. These conditions are presented in Appendix 2.

Matters addressed in the conditions include a requirement to:

- a) fence and protect all native vegetation within 200 metres of the alluvial soils of the Hill River, resulting in the area of permitted clearing as shown indicatively in Figure 4;
- b) engage a botanist to undertake an intensive survey of any areas of shallow limestone within the clearing area for significant flora, particularly *Eucalyptus argutifolia* and associated taxa; and
- c) prepare and implement a Flora Management Plan for avoiding or mitigating the impacts of the proposal on any significant flora detected in the survey referred to in b.

As the EPA is of the view that the second (south eastern) proposal is environmentally unacceptable and should not proceed it has not provided any draft conditions for this proposal.

6. Conclusions

The EPA has considered two proposals by the proponent to clear native vegetation on Melbourne Location 3927.

The cumulative impacts of land clearing in the agricultural area, as described in the EPA's Position Statement Number 2 are such that the clearing of any of the remaining native vegetation on Melbourne Location 3927, which lies within the agricultural area, would normally be regarded as environmentally unacceptable.

As discussed in Section 3.2 of this report, the timing of the referral of the first proposal was such that the EPA has considered and made an assessment of the environmental factors relevant to the proposal, however, the second proposal has been considered in view of the EPA's current position on clearing of native vegetation in the agricultural area.

6.1 First (northern) proposal

The first (northern) proposal referred to the EPA relates to a 142 hectare area of native vegetation adjacent to the Hill River.

Because extensive clearing of native vegetation has taken place in the agricultural area, as referred to in EPA Position Statement No 2, further broad scale clearing of native vegetation on the property would further contribute to cumulative loss of biodiversity and ecological function in the agricultural area.

The EPA has taken the view however, that the report on the northern proposal needs to take into prevailing policy at the time that this proposal was lodged. Taking into account the particular characteristics and location of this proposal and relevant technical information and advice, the EPA has decided that the proposal should be judged to be environmentally acceptable, provided the area within which clearing is permitted does not exceed the area shown in Figure 4 and there is satisfactory implementation by the proponent of the recommended conditions set out in Appendix 2.

In view of the need to protect the nature conservation and water quality values of the Hill River, a 200 metre wide buffer should be retained between the alluvial soils of the Hill River and the proposed clearing, as illustrated in Figure 3, with the area of permitted clearing as shown indicatively in Figure 4, if the proposal is approved for implementation. In order to ensure that this buffer is effective, this area would need to be fenced and included within an ATR under the provisions of the Soil and Land Conservation Act or protected through an alternative conservation mechanism. The EPA understands that the retention of this buffer would reduce the area of vegetation that could be cleared under this proposal to 134 ha (approximately 94% of the area proposed for clearing) and would result in approximately 673 hectares or 83% of the current area of native vegetation on the property being retained.

The EPA has concluded that the clearing associated with this proposal is unlikely to affect plant communities that are poorly conserved or inadequately represented within existing conservation reserves and is unlikely to significantly affect the contribution of native vegetation to nature conservation and biodiversity in the local area.

However as there is a possibility that significant flora may occur within the proposed clearing area, the proponent should be required to engage a botanist to undertake an intensive search of any areas of shallow limestone within the permitted clearing area for significant flora, particularly *Eucalyptus argutifolia* and associated taxa, prior to any clearing, to ensure that the objectives of the *Wildlife Conservation Act 1950* can be met. If significant flora are identified during this survey there should be a requirement for the proponent to prepare and implement a management plan for avoiding or mitigating the impacts of the proposal on any significant flora detected. This plan should be developed to the requirements of the Minister for the Environment and Heritage, on advice from CALM.

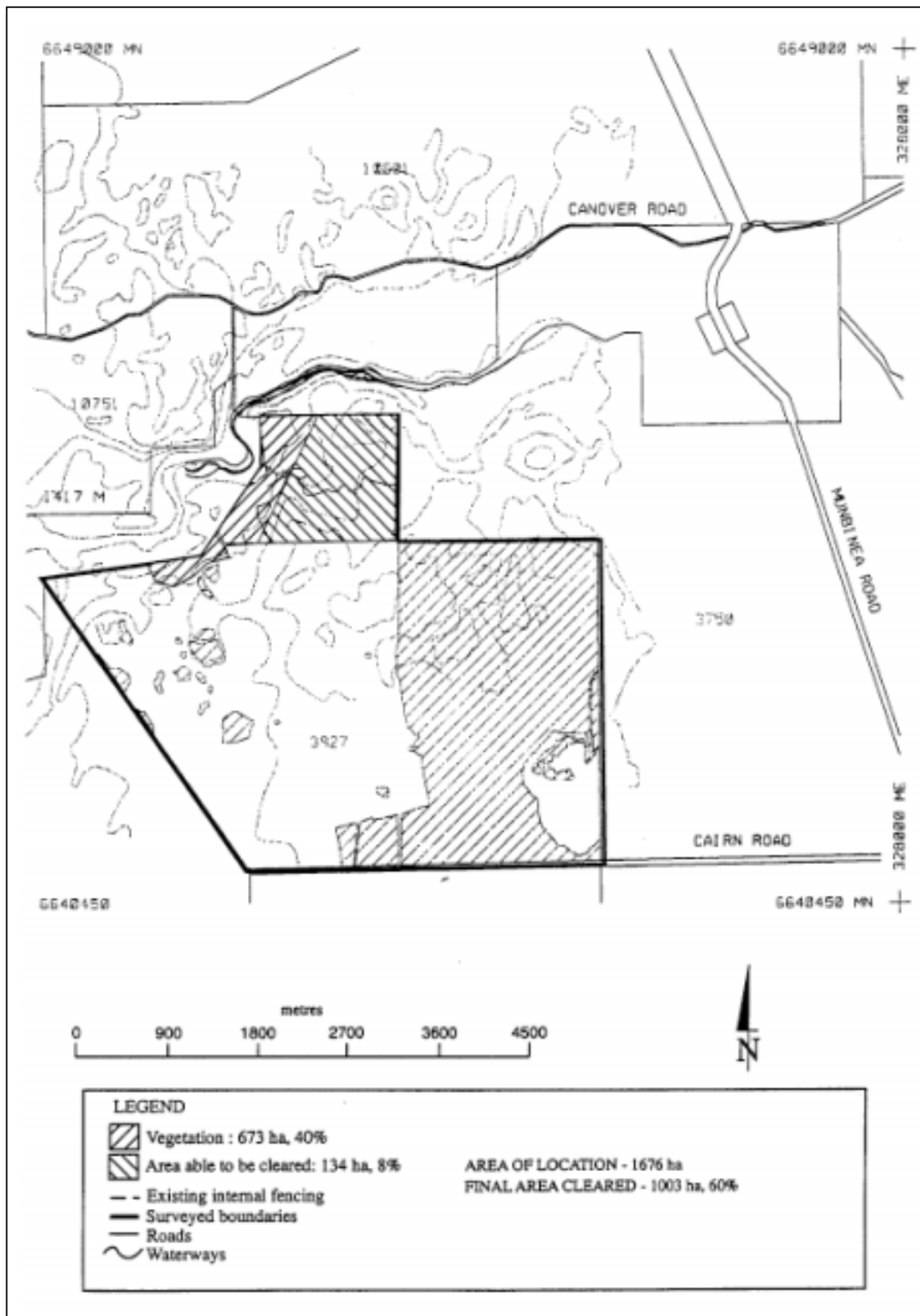


Figure 4: Map indicating the area within which the EPA recommends that clearing be permitted

6.2 Second (south eastern) proposal

The second proposal is for clearing of the majority of the large native vegetation remnant on the south eastern side of Location 3927. The EPA considers that in view of the need to address the cumulative impacts of broad-scale clearing on native vegetation and biodiversity generally, and in view of the fact that clearing of this larger remnant would significantly reduce the amount of native vegetation on the property and its capacity to maintain linkage and connectivity between areas of native vegetation in the locality, the remnant should be retained and protected for the long term and not cleared. The EPA is therefore of the view that the second (south eastern) proposal is environmentally unacceptable and should not proceed.

7. Recommendations

Section 44 of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for the Environment on the environmental factors relevant to the proposal and on the conditions and procedures to which the proposal should be subject, if implemented. In addition, the EPA may make recommendations as it sees fit.

The EPA submits the following recommendations to the Minister for the Environment and Heritage:

1. That the Minister notes that this report is the report and recommendations of the EPA in relation to two separate proposals for clearing of native vegetation on Melbourne Location 3927 that were referred to the EPA in 1998 and 2002. The two proposals are shown in figure 2. The first (northern) proposal is for clearing of 142 hectares of native vegetation adjacent to the Hill River. The second (south eastern) proposal is for clearing of approximately 540 hectares of native vegetation within the large area of vegetation in the south eastern section of the property.
2. That the Minister considers the report on the relevant environmental factors of :
 - a) Nature conservation and biodiversity; and
 - b) Water quality and conservation values of the Hill River,as set out in Section 4 of this report.
3. That the Minister notes that although the EPA's current position is that from an environmental perspective, further clearing of native vegetation in the agricultural area for agricultural purposes is no longer appropriate, the EPA has taken into consideration the prevailing policy at the time that the first (northern) proposal was lodged and relevant technical information and advice, in its assessment of environmental acceptability of that proposal.
4. That the Minister notes that in relation to the first (northern) proposal, the EPA considers that in order to protect the nature conservation and water quality values of the Hill River a 200 metre wide buffer should be retained between the alluvial soils of the Hill River and the proposed clearing, as illustrated in Figures 3 and 4 of this assessment report if the proposal is approved for implementation. The EPA considers that the buffer should be fenced and included within an ATR under the provisions of the Soil and Land Conservation Act or other conservation mechanism, to ensure the long term protection of the buffer vegetation.

5. That the Minister notes that the EPA has concluded that the first (northern) proposal should be judged to be environmentally acceptable provided the area within which clearing is permitted does not exceed the area shown in figure 4 and there is satisfactory implementation, by the proponent, of the recommended conditions set out in Appendix 2. The EPA is aware that in reaching this conclusion, the total area of vegetation within which clearing would be permitted will not exceed 134 hectares.
6. That, in relation to implementation of the first (northern) proposal, the Minister issues a statement that the proposal may be implemented imposing the conditions and procedures recommended in Appendix 2 of this report.
7. That the Minister notes that EPA has formed the view that the second (south eastern) proposal is environmentally unacceptable and should not proceed.
8. That the Minister not issue a statement that the second (south eastern) proposal may be implemented.

Appendix 1

References

- Agriculture WA (1997). *Notice of Intent to Clear Land - Level 2 Assessment, Melbourne Location 3927*. Report to the Commissioner of Soil and Land Conservation by J. Dixon, M. Keen and F. Rickwood (unpublished report of 5 August 1997).
- Agriculture Western Australia (AgWA) (1999). *Soil Assessment of Melbourne Location 392*. Unpublished letter of 27 July 1999 addressed to the Department of Environmental Protection.
- Beard J. S. (1979). *The vegetation of the Moora and Hill River area, Western Australia: Map and explanatory memoir*. Vegetation Survey of Western Australia. Vegmap publications. Perth.
- Commonwealth of Australia (1996a). *National Strategy for the Conservation of Australia's Biodiversity*. Canberra.
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- EPA (1998). *Clearing of Native Vegetation on Victoria Location 10598 Cockleshell Gully Road, Shire of Dandaragan – Reassessment under Section 43 of the Environmental Protection Act. Report and Recommendations of the EPA*. EPA Bulletin 894, May 1998.
- EPA (2000). *Environmental Protection of Native Vegetation in Western Australia: Clearing of native vegetation, with particular reference to the agricultural area*. EPA Position Statement No. 2, December 2000.
- Memorandum of Understanding (MOU) (1997) between the Commissioner for Soil and Land Conservation, Environmental Protection Authority, Department of Environmental Protection, Agriculture Western Australia, Department of Conservation and Land Management and the Water and Rivers Commission for the protection of remnant vegetation on private land in the agricultural region of Western Australia*. Agriculture Western Australia, Perth.
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Appendix 2

Recommended environmental conditions

RECOMMENDED CONDITIONS AND PROCEDURES

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

Assessment Title: CLEARING OF NATIVE VEGETATION FOR
HORTICULTURE AND GRAZING: MELBOURNE LOCATION
3927, SHIRE OF DANDARAGAN

Proposal: The clearing of not more than 134 hectares of native vegetation on Melbourne Location 3927. The area within which clearing of native vegetation is permitted (the permitted clearing area) is shown on the plan provided as figure 2 of schedule 1 of this statement.

Proponent: T G Naley

Proponent Address: PO Box 571, JURIEN WA 6516

Assessment Number: 1214

Report of the Environmental Protection Authority: Bulletin 1054

The proposal referred to above may be implemented subject to the following conditions and procedures:

Procedural conditions

1 Implementation and Changes

- 1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.
- 1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.
- 1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, is not substantial, the proponent may implement those changes upon receipt of written advice.

2 Proponent Nomination and Contact Details

- 2-1 The proponent for the time being nominated by the Minister for the Environment and Heritage under section 38(6) or (7) of the Environmental Protection Act 1986 is responsible for the implementation of the proposal until such time as the Minister for the Environment and Heritage has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.
- 2-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 2-3 The nominated proponent shall notify the Department of Environmental Protection of any change of contact name and address within 60 days of such change.

3 Commencement and Time Limit of Approval

- 3-1 The proponent shall provide evidence to the Minister for the Environment and Heritage within five years of the date of this statement that the proposal has been substantially commenced or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment and Heritage will determine any dispute as to whether the proposal has been substantially commenced.

- 3-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement to the Minister for the Environment and Heritage, prior to the expiration of the five-year period referred to in condition 3-1.

The application shall demonstrate that:

- the environmental factors of the proposal have not changed significantly,
- new, significant, environmental issues have not arisen, and
- relevant government authorities have been consulted.

Note: The Minister for the Environment and Heritage may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

Environmental conditions

4 Survey and Management Plan for Significant Flora

- 4-1 Prior to clearing of native vegetation within the permitted clearing area as identified in figure 2 of Schedule 1 of this Statement, the proponent shall engage a suitably qualified person to conduct an intensive ground survey of any areas of shallow limestone within the permitted area for the presence of significant flora.
- 4-2 In the event that the survey required by Condition 4-1 results in the identification of significant flora within the permitted clearing area, the proponent shall engage a suitably qualified person to prepare a Significant Flora Management Plan for avoiding or mitigating the impacts of the proposal on significant flora. This plan shall be prepared to the requirements of the Minister for the Environment and Heritage, on advice of the Department of Conservation and Land Management.
- 4-3 The proponent shall conduct the survey required by Condition 4-1 and implement any management plan required by Condition 4-2 in accordance with the requirements of the Minister for the Environment and Heritage on advice of the Department of Conservation and Land Management

5 River Buffer Area Management Plan

- 5-1 The proponent shall prepare a River Buffer Area Management Plan to protect the values of the area identified in figure 2 of schedule 1 to this Statement, to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority. This plan shall address:
- Fencing and exclusion of agricultural livestock from the identified area;
 - Management of planned and unplanned fire; and
 - Access and /or disturbance by vehicles or machinery.
- 5-2 The proponent shall implement the River Buffer Area Management Plan required by condition 5-1 to the requirements of the Minister for the Environment and Heritage on advice of the Department of Conservation and Land Management.

Procedures

- 1 Where the condition states "to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority", the Chief Executive Officer of the Department of Environmental Protection will obtain that advice for the preparation of written advice to the proponent.
- 2 The Environmental Protection Authority may seek advice from other agencies, as required, in order to provide its advice to the Chief Executive Officer of the Department of Environmental Protection.

Note

- 1 The Minister for the Environment and Heritage will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection over the fulfilment of the requirements of the conditions.

Schedule 1

The Proposal (Assessment No. 1214)

The proposal permitted by this statement involves the clearing of not more than 134 hectares of native vegetation on Melbourne Location 3927, within the Shire of Dandaragan. The location of the property is illustrated in Figure 1. The area within which clearing of native vegetation is permitted (the 'permitted clearing area') is shown in Figure 2. Approximately 673 hectares of native vegetation (40% of the property area) will remain on the property following clearing of the permitted clearing area as shown in Figure 2.

Key Characteristics Table

Element	Description
Total area of property	1676 hectares
Size of the permitted clearing area (as estimated by the Department of Agriculture)	Not more than 134 hectares as shown in Figure 2
Area of native vegetation estimated remaining after proposed clearing	Not less than 673 hectares as shown in Figure 2
Purpose of clearing	Horticulture and grazing

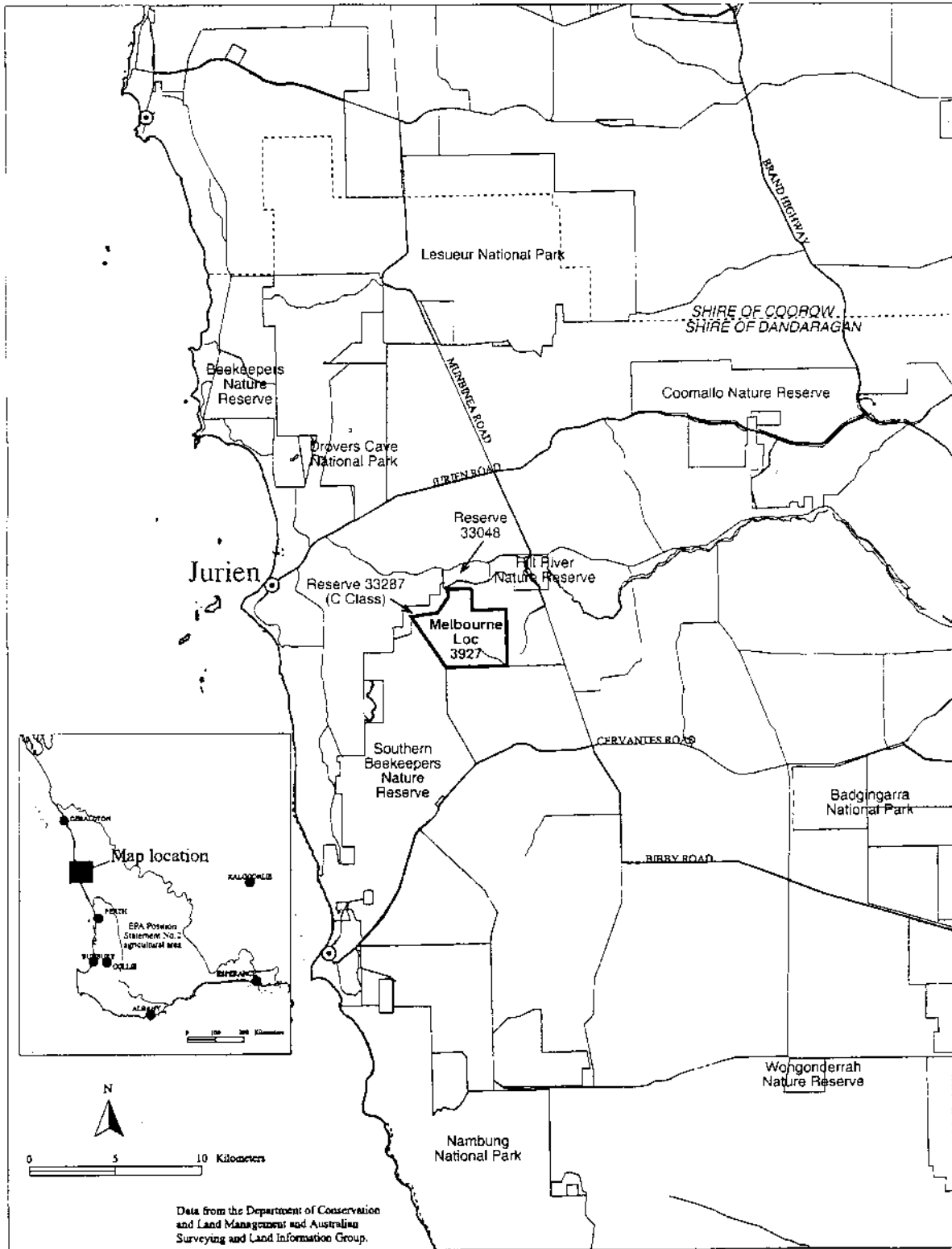


Figure 1: Locality map for Melbourne Location 3927

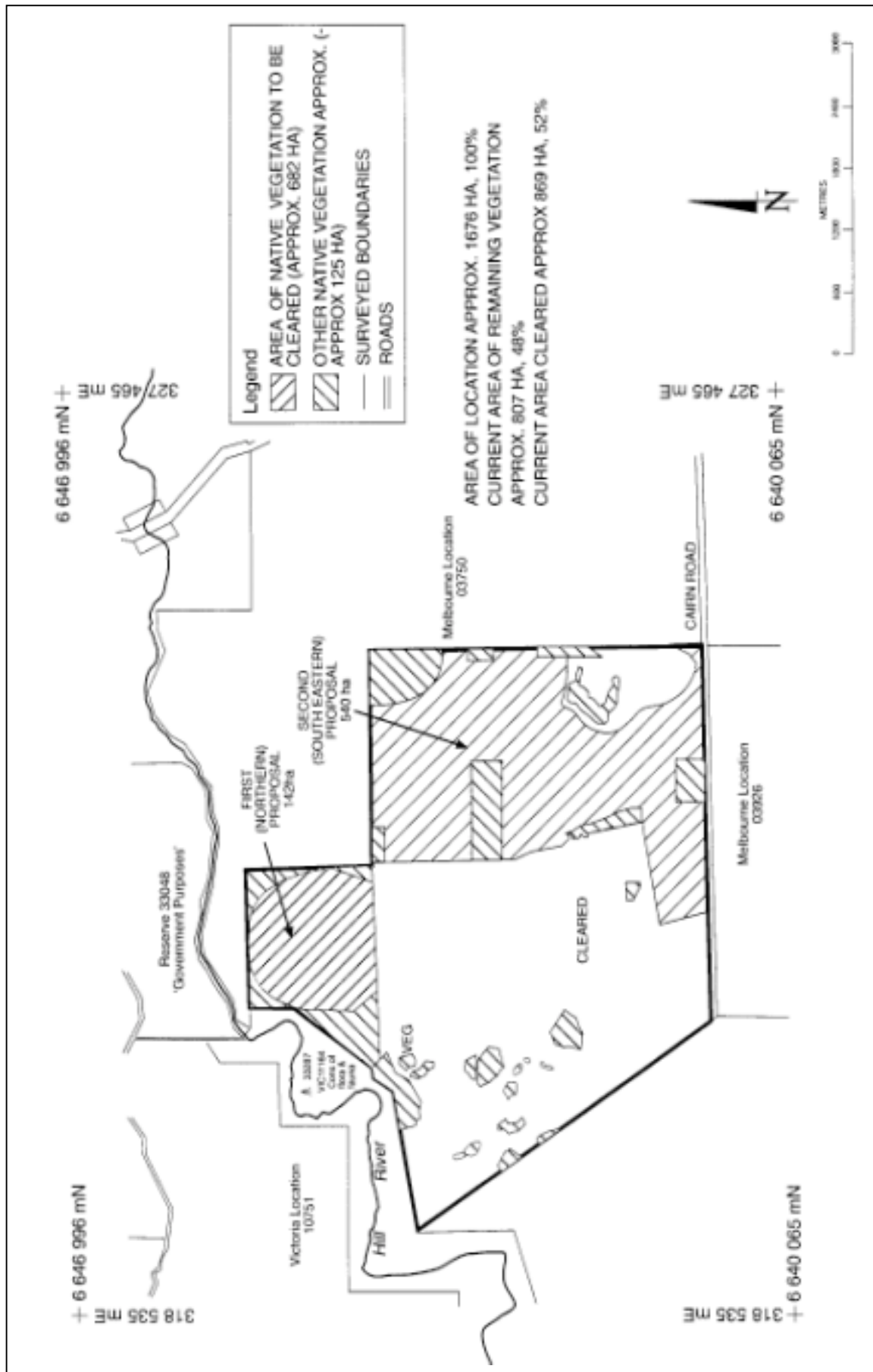


Figure 2: Permitted clearing area and River buffer area