

**Clearing of native vegetation on Fitzgerald
Locations 446 and 1538, north west of Salmon
Gums, Shire of Esperance**

Mr Gregory Kenney

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

**Environmental Protection Authority
Perth, Western Australia
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Assessment No. 1267

Summary and recommendations

The proponent has notified to clear approximately sixty hectares (ha) of native vegetation on Fitzgerald Locations 466 and 1538, north-west of Salmon Gums, Shire of Esperance. This report provides the Environmental Protection Authority's (EPA's) advice and recommendations to the Minister for the Environment on the environmental factors relevant to the proposal.

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.

Relevant environmental factors

It is the EPA's opinion that the environmental factors relevant to this proposal which require detailed evaluation in this report are:

- (a) Nature conservation and biological diversity - impacts due to loss of native vegetation; and
- (b) Salinity – potential for increased saline groundwater levels due to enhanced recharge.

Conclusions

The EPA has considered the proposal to clear approximately 60 ha of native vegetation on Fitzgerald Locations 466 and 1538.

The proposal is located within the Shire of Esperance where there is presently less than 20% of remnant native vegetation remaining within the agricultural portion of the Shire. Implementation of the proposal would reduce the remnant vegetation on the property to approximately 164 ha, which is only 7.6% of the area of the property. Thus, on both a regional and property scale, the proposal is inconsistent with the government policy criteria of at least 20% retention of native vegetation. The majority of the remaining vegetation would consist of long narrow strips along fencelines and in the corners of paddocks.

The EPA considers that all the vegetation proposed to be cleared should be retained because clearing is likely to lead to the continued loss of nature conservation and biological diversity values of vegetation in the region, and may contribute to salinity problems in the long term.

The EPA is aware that a portion of the vegetation has already been chained prior to this assessment commencing. The EPA considers that this area should be allowed to regrow.

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:

1. That the Minister considers the report on the relevant environmental factors of:
 - (a) Nature conservation and biological diversity; and
 - (b) Salinity,as set out in Section 3 of this report.
2. That the Minister notes that the EPA has concluded that the vegetation proposed to be cleared should be retained because clearing is likely to lead to the continued loss of nature conservation and biological diversity values of vegetation in the region, and may contribute to salinity problems in the long term.
3. That the Minister not issue a statement that the proposal may be implemented.

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1. Introduction and background

This report is to provide advice and recommendations of the Environmental Protection Authority (EPA) to the Minister for the Environment on a proposal to clear native vegetation for agricultural purposes in the Shire of Esperance.

The proponent has notified to clear approximately 60 hectares (ha) of native vegetation. The EPA understands that a portion of the vegetation was chained in late 1998, in preparation for burning. On being made aware of the chaining the Commission for Soil and Land Conservation advised the proponent of the need to submit a Notice of Intent (NOI) to clear before a change in land use could occur.

The proponent subsequently submitted a NOI to clear to the Commissioner in January 1999. The EPA understands that a change in land use has not occurred and that the vegetation which was chained has been allowed to regrow pending consideration of the NOI through the established approval processes.

The Shire of Esperance has less than 20% of its original native vegetation remaining in the main agricultural areas. The proposed clearing would also result in less than 20% of native vegetation remaining on the subject property. The NOI to clear has been considered by Commissioner for Soil and Land Conservation and the Inter Agency Working Group, in accordance with the requirements of the 'Memorandum of the Understanding (MoU) for the protection of remnant vegetation on private land in the agricultural region of Western Australia', (MoU, 1997). The Commissioner determined that the clearing should not be objected to on soil and land conservation grounds, however, the Inter Agency Working Group considered that there was a likelihood that nature conservation values could be affected. The proposal was subsequently forwarded to the EPA by the Commissioner for assessment in March 1999. 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* in April 1999.

In assessing this land clearing proposal the EPA has drawn on its experience in assessing other land clearing proposals in recent years, as set out in its recent advice to the Minister for the Environment in Bulletin 966, 'Clearing of Native Vegetation – Environmental advice on the issues arising from use of Section 38 to assess clearing proposals in the agricultural area, and implications for the other areas of Western Australia' (EPA, 1999a). The EPA has also had regard to its Preliminary Position Statement No 2, 'Environmental Protection of Native Vegetation in Western Australia' (EPA, 1999b).

2. The proposal

The proponent has notified to clear approximately 60 ha of native vegetation, 45 ha on Fitzgerald Location 466 and 15 ha on Fitzgerald Location 1538. The property is approximately 2149 ha in area, and is located 25 kilometres north-west of the town of Salmon Gums (Figure 1). The proponent intends to use the cleared land for wheat cropping and sheep grazing. The EPA understands that the vegetation on Fitzgerald Location 466 was chained in preparation for burning, however, this has been allowed to regrow pending this assessment under the *Environmental Protection Act 1986*, and any further deliberations by the Commissioner for Soil and Land Conservation.

A total of approximately 164 ha of vegetation (approximately 7.6% of the property) would remain on the property after the proposed clearing, as indicated in Figure 2.

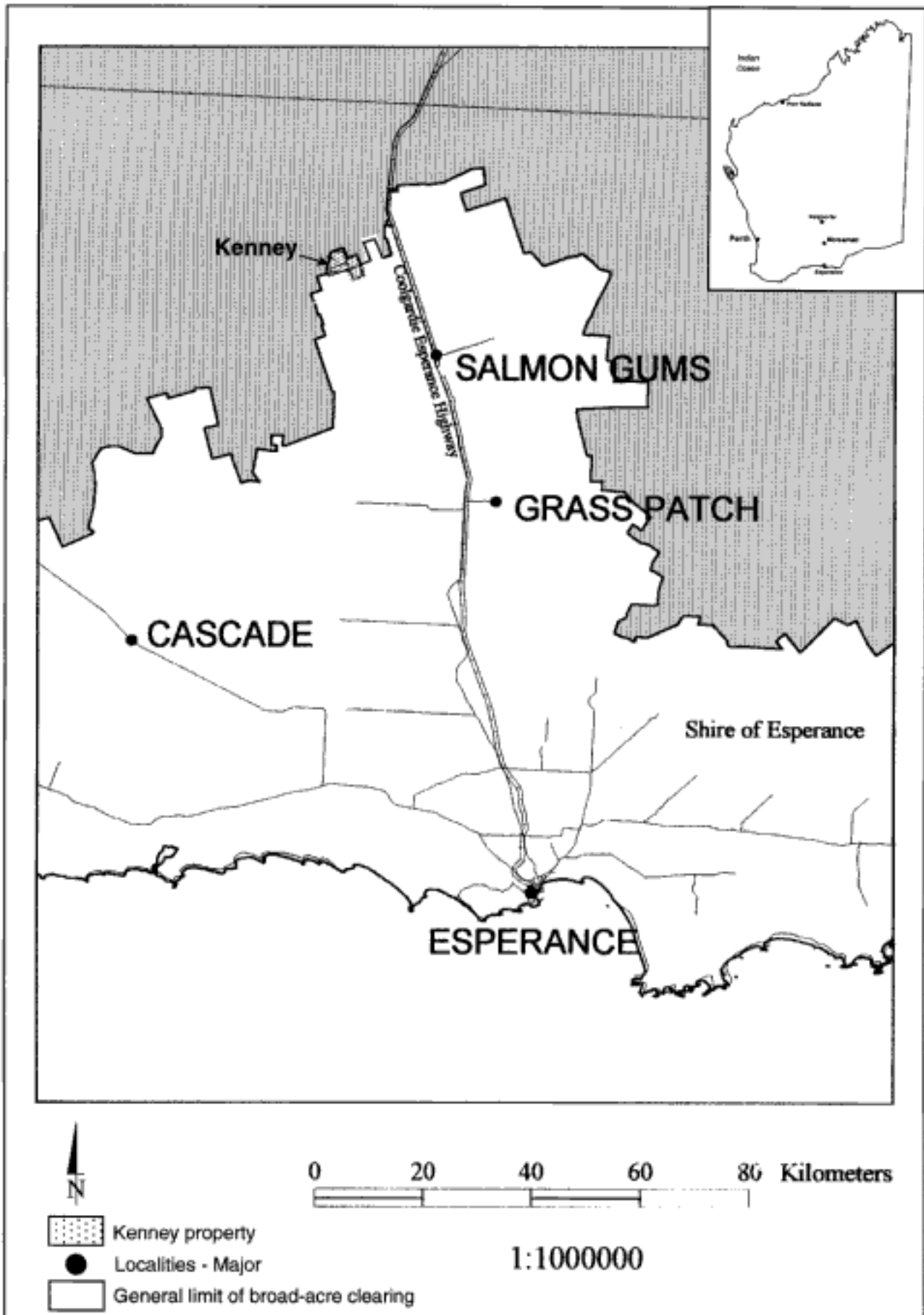


Figure 1. Map indicating location of Kenney property.

ANNEXURE A

NOTICE OF INTENTION
TO CLEAR LAND

Gregory Peter Kenney

LAND DESCRIPTION.
Fitzgerald Location 466, 580, 1538 & 1433

- LEGEND
- VEGETATION 844/94. 7.6Z
 - AREA NOTIFIED 50/2/94. 7.6Z
 - EXISTING INTERNAL FENCING
 - SUBMITTED BOUNDARIES
 - ROADS
 - WATERWAYS
 - DAMS
 - SWAMPS
 - RESERVES
 - RAIL

AREA OF LOCATION - 2/8/96/94. 8/0/0;
AREA OF REMAINING VEGETATION - 16/4/94. 7.6Z
AREA CLEARED - 18/6/96/94. 8/0.3/6Z



NOTE:
1. ALL MEASUREMENTS AND AREAS ARE ONLY APPROXIMATE AND SUBJECT TO ON-SITE VERIFICATION BY A LAND CONSERVATION OFFICER FROM THE DEPARTMENT OF AGRICULTURE.
2. CONTOUR SET OF AVERAGE ELEVATION - 217M
3. CAPTURE SCALE OF CATCHMENT 1:50,000
4. CAPTURE SCALE OF VEGETATION 1:50,000
5. DETAILS OF AERIAL PHOTOGRAPHY - November 1984 Run 10 240
6. LAND ZONE - 81

DRAWN BY: _____ DATE: M / / 96
CHECKED BY: _____ DATE: / /



Figure 2. Notice of intention to clear - Fitzgerald Locations 466 & 1538 (Source: Ag WA).

3. Environmental factors

3.1 Relevant environmental factors

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.

It is the EPA's opinion that the environmental factors relevant to this proposal are:

- (a) Nature conservation and biological diversity - impacts due to loss of native vegetation; and
- (b) Salinity – potential for increased saline groundwater levels due to enhanced recharge.

These relevant environmental factors are discussed in Sections 3.2 and 3.3 of this report.

3.2 Nature conservation and biological diversity

3.2.1 Strategic context

This land clearing proposal is located within the Shire of Esperance where there is less than 20% of remnant native vegetation remaining within the agricultural portion of the Shire (MoU, 1997). Further, the proposed clearing would result in only 164 ha (7.6%) of remnant vegetation, or equivalent deep rooted vegetation, remaining on the subject property.

It is now well recognised that broad-scale land clearing and consequential salinity have had a dramatic 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 (Western Australian Government, 1998, and Commonwealth of Australia, 1996).

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.

a) State Government position, 1995

The State Government position of 1995 agreed to apply restrictions on clearing and to augment the Commissioner's assessment of clearing applications to ensure that other natural resource management issues as well as land degradation issues were considered before any further clearing occurred on privately owned land. The position included the following elements:

- restrict any clearing that would reduce the amount of remnant vegetation or deep rooted perennial vegetation on any property (contiguous landholding) to below 20% of the original;
- discourage clearing in any shire where the total amount of remnant vegetation was less than 20% of the shire area, by requiring nature conservation values to be considered; and
- put the onus onto the proponent to demonstrate clearly that clearing would not cause land degradation or threaten nature conservation values.

b) State Memorandum of Understanding

The State Government position has been implemented via a MoU signed by the Commissioner for Soil and Land Conservation, the Chairman of the EPA, and the Chief Executive Officers of the Department of Environmental Protection (DEP), Department of Conservation and Land Management (CALM), Water and Rivers Commission (WRC), and Agriculture Western Australia (AgWA). It marries the Commissioner's Notice of Intent to Clear process with the environmental impact assessment process under the *Environmental Protection Act 1986*. The MoU was signed in March 1997 and a summary document containing the main elements of the MoU has been published by Agriculture Western Australia (Agriculture WA, 1997).

The MoU position is that for areas of more than one hectare of native vegetation on rural zoned land in southern Western Australia where:

- there is less than 20% of the original vegetation remaining in the main agricultural area of the shire; or
- less than 20% of the original vegetation remaining on the property; or
- a controlled catchment or water reserve proclaimed under the *Country Area Water Supply Act 1947*; or
- a special policy area such as the Peel-Harvey Catchment,

“there is a general presumption against clearing” and “the onus will be on the landholder to demonstrate that land degradation and loss of biodiversity will not occur” (Agriculture WA, 1997).

c) Other State and Commonwealth strategic initiatives

Since 1995 when the State Government released its position on protection and management of remnant vegetation on private land in the agricultural region, there have been a number of significant policy and program initiatives at both a State and Commonwealth level which have a bearing on the issue. These include:

- The National Strategy for the Conservation of Australia's Biological Diversity. Specifically Objective 7.1 of the National Strategy which commits all State, Territory and Commonwealth Governments by the year 2000 to, among other things:
 - “(l) arresting and reversing the decline of remnant vegetation; and
 - (k) avoiding or limiting any further broad-scale clearance of native vegetation, consistent with ecologically sustainable management and bio-regional planning, to those instances in which regional biological diversity objectives are not compromised” (Commonwealth of Australia, 1996, p.42).
- the establishment of the National Heritage Trust by the Commonwealth Government and its changes of focus from the National Landcare Program which funded work on private land for private benefit to an emphasis on funding work on private land for public benefit, in a more regional context, in particular through the Bushcare initiatives;
- the Commonwealth and WA State of the Environment reports which identified biodiversity, and clearing and salinity as critical issues;

- the development of the WA Salinity Strategy and formation of a WA State Salinity Council; and
- the National Greenhouse Strategy from the Kyoto conference, which encourages the retention of native vegetation as a carbon sink.

d) EPA position

Within the strategic framework provided by the above government policy positions and programs, the EPA has assessed a number of land clearing proposals over recent years.

Based on these assessments and a workshop with key personnel from agencies which are signatories to the MoU for protection of native vegetation in December 1999, the EPA released a Position Statement regarding 'Environmental Protection of Native Vegetation in Western Australian' (EPA, 1999b).

Specifically in relation to the agricultural region, the EPA's current position on clearing 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 (e.g. through 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.

In accordance with this position, and based on the extensive land clearing which has already occurred in the Esperance Shire (less than 20% remnant native vegetation remaining within the agricultural portion of the Shire) and the limited area of vegetation which remains on the subject property (10.4% of the property), the EPA considers that the clearing proposed in this NOI to clear should not be permitted. The challenge is to establish a response to the equity issue rather than to continue to allow clearing (see also section 4.1).

3.2.2 Property specific considerations

The proposed clearing was evaluated by officers from AgWA, DEP, CALM and WRC in accordance with the principles and criteria set out in the MoU for protection of native vegetation, through the Levels 1 to 3 processes. A summary of these findings is presented in Appendix 2 as provided to the EPA.

The property is located at the boundary of the agricultural region where broad-scale land clearing has occurred. Land to north of the property is generally vacant crown land.

The EPA notes that no specific surveys have been carried out for Declared Rare or Priority flora species within the vegetation proposed to be cleared, however, based on regional data, rare flora may occur within the vegetation.

Also no specific mapping of the vegetation has been carried out. Based on regional mapping, the vegetation in the property falls within the Salmon Gums vegetation system, "Mosaic: Shrublands; mallee scrub *Eucalyptus eremophila*/Medium woodlands; salmon gums and red mallee' (Beard, 1973). Approximately 30% of this vegetation system remains within the Salmon Gums area, with the majority of this on vacant crown land outside the agricultural region. Only 4% of the original area of this vegetation system is within secure conservation

reserves. The EPA notes that the Beard of mapping is of a broad nature and that little information is known regarding the vegetation proposed to be cleared, or vegetation in the general region, at a plant community level. It is therefore not possible to conclude that the vegetation proposed to be cleared is adequately represented in the region.

The EPA also notes that while the remnant vegetation currently remaining on the property may provide only limited fauna corridor value as a 'stepping stone', the remnant on Location 466 is of an area and shape which still maintains viability, but that this would be substantially affected by the proposed clearing. The majority of the vegetation which it is proposed to retain on the property consists of long narrow strips along fencelines and in the corners of paddock (Figure 2).

Based on the assessments of the proposed clearing through the Level 3 process of the MoU, CALM and DEP have recommended that the clearing should not be permitted.

In its recent advice to the Minister for the Environment on issues arising from use of Section 38 to assess clearing proposals (EPA, 1999a), the EPA drew attention the difficulties presented to the Authority as a result of the limited detailed information which was generally available to it to assess individual proposals. In this case again, there is limited specific information regarding the vegetation proposed to be cleared or other vegetation in the region.

However, based on the information which is available, and adopting a precautionary approach, the EPA considers that the further clearing proposed on Locations 466 and 1538 would be likely to continue the loss of nature conservation and biological diversity values of vegetation in the region, and should not be permitted.

3.3 Salinity

The State Salinity Strategy (Western Australian Government, 2000a) has recognised that rising saline watertables resulting from clearing of native vegetation have already had a major impact on nature conservation and biological diversity values in the agricultural region, and poses a substantial ongoing threat.

The Commissioner for Soil and Land Conservation has determined through the Level 1 and 2 process of the MoU that the proposed clearing is unlikely to lead to significant land degradation or salinity impacts, subject to the following qualifications:

- Based on salinity and groundwater recharge criteria, a small portion of the area notified (Unit 4Bs soils) may not be suitable for farming. The proponent would need to provide comparable EM38 or similar data from the Unit 4Bs soil areas proposed for clearing and the 4Bs soil areas which he considers are currently successfully farmed;
- the soil type and hence suitability of the small area on Fitzgerald Location 1538 still needs to be determined; and
- while there is little data on groundwater, the soils proposed for clearing are low recharge soils so on balance the risk of groundwater recharge is low.

The Commissioner's determination is based primarily on soil mapping covering the property which indicates the soils in the areas proposed for clearing are generally of low salt content and low recharge capacity. The Commissioner has also had regard for work reported by Short and Skinner (1996) on 'Hydrological Systems and Managing the Water Balance at Esperance WA'. The subject property is located within zone 10 of the Esperance Agricultural Advisory District (Short and Skinner, 1996) which has been assessed as generally having a low salinity hazard rating due to the low recharge and depth to groundwater.

AgWA has noted, however, that zone 10 has limited data points and none within the local area of the subject property.

The groundwater levels, their trends and salinities under the property are currently unknown, however, a monitoring point elsewhere in the zone has a groundwater level approximately 11.5 metres below the surface and a conductivity of 5470 millisiemens per metre (salinity of approximately 28,000 milligrams per litre).

In commenting on the proposed clearing through the Level 3 process of the MoU, the WRC advised that the clearing is likely to have an impact on the groundwater system through enhanced recharge to the superficial aquifer, which will be expressed through a watertable rise. The effect of enhanced recharge on the watertable is difficult to assess due to the low topographic relief and internal drainage system. It is likely that an increase in the groundwater levels will be expressed through increased discharge in topographic lows on both farm and catchment scale.

The WRC has recommended an on-site hydrological inspection to assess the groundwater characteristics prior to any decision to allow the clearing (Appendix 2).

The DEP has drawn attention to the work of the South Coast Regional Initiative Planning Team (SCRIPT, 1997) in the Mallee South Coast Regional Land and Water Care Strategy which indicates groundwater levels are rising in the region. On this basis, the DEP is concerned that a long term rise in groundwater will eventually lead to salinisation. The DEP is therefore opposed to the proposed clearing as it may incrementally contribute to regional salinity problems in the long term.

The EPA recognises that the area of vegetation proposed to be cleared is small in terms of the total area cleared within the locality and that the area has been assessed as generally having a low salinity hazard rating. The property is within the Salmon Gums West and North area of 102800 ha of farmland, where less than 5% of remnant vegetation remains within farmland. However, as a matter of principle, where there is any risk of clearing adding incrementally to recharge and hence long term saline groundwater rises, the EPA considers that clearing should not be permitted.

In the case of this proposal the EPA considers that it has not been confidently determined that the clearing would not increase recharge and contribute to long term saline groundwater rise. The EPA therefore considers that the clearing should not be permitted.

4. Other advice

4.1 Final report of the Native Vegetation Working Group

The Working Group was established by the Minister for Primary Industry to 'develop mechanisms that minimise the economic burden carried by individual landholders in the protection and retention of privately owned bushland in agricultural areas'. The Working Group reported in January 2000 (Western Australian Government, 2000b).

In the Report Introduction, the Working Group set out that:

“Most of Western Australia’s farmland has been cleared and developed in the past 100 years. We have now reached the limit of expansion, and there is now a high level of agreement across the community, rural and urban, that the time of broadacre clearing has passed. Amongst the challenges facing us is to determine a useful and well supported future of bushland in our farming areas. Indeed, unless there is a substantial increase in tree and bush cover many of the farms established in the last hundred years may fall victim to increasing salinity.”

The Report discusses a range of mechanisms aimed at both assisting in the protection and management of bushland, and ensuring that the costs are spread more equitably across the whole community. The Working Group put forward fifteen recommendations.

The EPA commends the Working Group on its report on mechanisms and encourages government to give active consideration to the recommendations (Western Australian Government, 2000b).

As noted in the EPA's recent advice to the Minister for the Environment on environmental issues arising from the assessment of individual land clearing proposals (EPA, 1999a), "the challenge now is to establish a response to these applications in terms of addressing the equity issue rather than continuing to allow clearing". The EPA sees the Working Group's report and recommendations as clearly progressing this issue.

4.2 Clearing prior to lodgement of Notice of Intent to clear

The EPA notes that a portion of the vegetation proposed to be cleared has already been chained. This action was undertaken prior to lodgement of an NOI to clear and assessment of the NOI in accordance with the MoU process. It is understood that the Commissioner for Soil and Land Conservation has chosen not to take any enforcement action as a result of the chaining as it does not yet constitute a change in land use. The EPA understands that the vegetation which was chained has been allowed to regrow pending consideration of the NOI through the established processes.

As a general matter, not just in regard to this proposal, the EPA is concerned that the *Environmental Protection Act 1986* does not presently include provisions which make it an offence to proceed with clearing, prior to consideration under the Act. The EPA understands that amendments currently proposed to the Act will address this situation, and endorses these amendments.

5. Conclusions

The EPA has considered the proposal to clear approximately 60 ha of native vegetation on Fitzgerald Locations 466 and 1538.

The proposal is located within the Shire of Esperance where there is presently less than 20% of remnant native vegetation remaining within the agricultural portion of the Shire. Implementation of the proposal would reduce the remnant vegetation on the property to approximately 164 ha, which is only 7.6% of the area of the property. Thus, on both a regional and property scale, the proposal is inconsistent with the government policy criteria of at least 20% retention of native vegetation. The majority of the remaining vegetation would consist of long narrow strips along fencelines and in the corners of paddocks.

The EPA considers that all the vegetation proposed to be cleared should be retained because clearing is likely to lead to the continued loss of nature conservation and biological diversity values of vegetation in the region, and may contribute to salinity problems in the long term.

The EPA is aware that a portion of the vegetation has already been chained prior to this assessment commencing. The EPA considers that this area should be allowed to regrow.

6. 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:

1. That the Minister considers the report on the relevant environmental factors of:
 - (a) Nature conservation and biological diversity; and
 - (b) Salinity,as set out in Section 3 of this report.
2. That the Minister notes that the EPA has concluded that the vegetation proposed to be cleared should be retained because clearing is likely to lead to the continued loss of nature conservation and biological diversity values of vegetation in the region, and may contribute to salinity problems in the long term.
3. That the Minister not issue a statement that the proposal may be implemented.

Appendix 1

References

- Agriculture WA (1997) The Protection of Remnant Vegetation on Private Land in the Agricultural Region of Western Australia, Agriculture Western Australia: Albany, WA.
- Commonwealth of Australia (1996) 'The National Strategy for the Conservation of Australia's Biological Diversity', AGPS: Canberra, ACT.
- Commonwealth of Australia and State of Western Australia (1997) Partnership Agreement between the Commonwealth of Australia and the State of Western Australia addressing jointly agreed natural heritage objectives and the provision of financial assistance under the Natural Heritage Trust of Australia Reserve and related programs, Environment Australia: Canberra, ACT.
- Commonwealth of Australia (1998) The National Greenhouse Strategy - Strategic Framework for Advancing Australia's Greenhouse Response, Australian Greenhouse Office: Canberra, ACT.
- EPA (1999a) Clearing of Native Vegetation – Environmental advice on the issues arising from use of Section 38 to assess clearing proposals in the agricultural area, and implementations for the other areas of Western Australia, Bulletin, 966, Environmental Protection Authority: Perth, WA.
- EPA (1999b) The Protection of Native Vegetation in Western Australia, Preliminary Position Statement No2, Environmental Protection Authority: Perth, WA.
- Gee, S. and Simons, J. (1997) Catchments of the Esperance Region. Division of Resource Management Technical Report No. 165, Agriculture Western Australia: Perth, WA.
- Memorandum of Understanding (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, WA.
- Western Australian Government (1998) Western Australian Salinity Action Plan, Western Australian Government: Perth, WA.
- Script (1997) South Coast Regional Land and Water Care Strategy – The Mallee Sub-Region, Prepared by The South Coast Regional Assessment Panel (RAP), and the South Coast Regional Initiative Planning Team (SCRIPT): Esperance, WA.
- Short, R. and Skinner, G. (1996) Hydrological Systems and managing the Water Balance at Esperance, WA. In: Increasing Plant Water Use to reduce Salinity - Esperance Seminar 1996, Agriculture Western Australia: Esperance, WA.
- Western Australian Government (1998) State of Environment Report, Western Australian Government: Perth, WA.
- Western Australian Government (2000a) Natural Resource Management - The Salinity Strategy, prepared by the State Salinity Council in association with community groups and government agencies, Western Australian Government: Perth, WA.
- Western Australian Government (2000b) Final Report of the Native Vegetation Working Group, Western Australian Government: Perth, WA.

Appendix 2

**Evaluation of proposed clearing on Fitzgerald locations 470, 525, 527, 557,
and 1480 under principles and criteria set in the MoU for protection of
native vegetation as presented in the Level 2 process**

1.	Regional Processes	
Item	Principle – native vegetation should be retained if:	Yes/No/Partly
1.1 Water	the clearance of native vegetation is likely to cause deterioration in surface and groundwater catchments which result in increases in salinity and eutrophication	Yes – low salinity risks if cleared
1.2 Soil	the clearance of vegetation is likely to contribute to soil erosion, waterlogging or flooding.	No
1.3 Corridors and Buffers	the land provides a corridor or stepping stone between areas of conservation land or the land provides a buffer or is an inlier to areas reserved for conservation.	Partly-stepping stone, no major corridor link
1.4 Aesthetics and Cultural	the land provides high landscapes values, has special physiographic features, aboriginal sites or heritage value.	Partly, unsure of aboriginal sites

OUTCOME OF LEVEL 3 IAWG MEETING NOTICE OF INTENTION TO CLEAR LAND

IAWG Meeting Date: 10 February 1999 (23rd Meeting)
Proponent: KENNEY, Gregory
Location: Fitzgerald Location 466 and 1538
Located near Magagnotti Road, 25 km northwest of
Salmon Gums townsite, Shire of Esperance
NOI Date: 8 January 1999
Area Notified: Notified to clear 60 ha, 15 ha within Location 1538,
appears sparse
(45 ha within Location 466 already chained, no change
of land use undertaken)
Intended use: Wheat and sheep

Issues:

1. Land degradation

Potential increase in salinity and groundwater recharge with clearing of vegetation on some soils (Unit 4Bs). There is no secondary salinity within the property, and the salinity rating is low. Soil types on small area notified on Fitzgerald Location 1538 not yet identified. Wind erosion hazards could be managed by windbreaks/shelterbelts, and maintaining ground cover.

Percentage of vegetation remaining after clearing (7%) would not meet 20% guideline.

2. Nature Conservation

No rare flora has been recorded from the Locations. However, extensive flora surveys have not been conducted.

3. Wetlands/drainage

No defined water courses within the property.

Commissioner's (Regulatory) Opinion:

No objection to clearing the majority of the areas notified, subject to clarification on suitability of soils (4Bs) for farming.

IAWG Advice to the Commissioner:

CALM: Likelihood of rare flora, survey should be undertaken.

DEP: Concern over vegetation remaining in Shire and on property not within guidelines. If no land degradation issues identified, recommend referral to EPA.

WRC: Likely impacts on groundwater system through enhanced recharge. On-site hydrogeological inspection recommended.

If Commissioner unable to object on land degradation grounds, to be referred to EPA.

Referred to EPA.

LEVEL 3 SUMMARY SHEET - NOTICE OF INTENT TO CLEAR LAND

Water and Rivers Commission Comments

IAWG Meeting Date: 10 February 1999 (23rd Meeting)

Proponent: KENNEY, Gregory

Location: Fitzgerald Location 466 and 1538
Located near Magagnotti Road, 25 km northwest of Salmon Gums
townsite, Shire of Esperance

NOI Date: 8 January 1999

Area Notified: Notified to clear 60 ha, 15 ha within Location 1538 appears sparse
(45 ha within Location 466 already chained, no change of land use
undertaken)

Intended use: Wheat and sheep

WRC's Advice to the Commissioner:

Groundwater Risk Assessment

The proposed land clearing will not impact upon a groundwater resource.

The proposed clearance is likely to have an impact on the groundwater system through enhanced recharge to the superficial aquifer, which will be expressed through a watertable rise.

The effect of enhanced recharge on the watertable is difficult to assess due to the low topographic relief and internal drainage system. It is likely that an increase in the groundwater levels will be expressed through increased discharge in topographic lows on both farm and catchment scale.

An on-site hydrogeological inspection to assess the groundwater characteristics is recommended prior to a decision on this application.

LEVEL 3 SUMMARY SHEET - NOTICE OF INTENT TO CLEAR LAND

Department Of Conservation And Land Management Comments

IAWG Meeting Date: 10 February 1999 (23rd Meeting)

Proponent: KENNEY, Gregory

Location: Fitzgerald Location 466 and 1538
Located near Magagnotti Road, 25 km northwest of Salmon Gums
townsite, Shire of Esperance

NOI Date: 8 January 1999

Area Notified: Notified to clear 60 ha, 15 ha within Location 1538 appears sparse
(45 ha within Location 466 already chained, no change of land use
undertaken)

Intended use: Wheat and sheep

CALM's Advice to the Commissioner:

No rare flora has been recorded from either location 466 or 1538, although numerous priority species have been recorded within a 30km radius of this locality.

Location No. 466 – areas of salt (4Bs) should remain vegetated; utilise 4B soils instead?

Location No. 1538 – would appear that this remnant is degraded and has no conservation value.

Of concern are the remaining remnants, which are stock affected and lack understorey and regeneration, also the remaining vegetation on the property would be reduced to <20%.

To allow further clearing, combined with the already degraded remnants, could lead to further land degradation.

Given the poor flora survey effort and the above issues, no clearing should be recommended.