Memorandum of Understanding

between the

Commissioner for Soil and Land Conservation
Environmental Protection Authority
Department of Environmental Protection
Agriculture Western Australia
Department of Conservation and Land Management
Water and Rivers Commission

for the protection of
remnant vegetation on private land
in the agricultural region of
Western Australia

1. Purpose

The retention of existing remnant native vegetation is of vital importance in supporting private and public efforts to reverse land degradation and biodiversity loss, and to prevent these problems worsening while solutions are found and implemented.

In April 1995 State Cabinet endorsed a series of proposals to:

- remove the presumed right to clear native vegetation in landscapes containing less than 20% of the original vegetation
- modify the process for assessing clearing proposals to include consideration of nature conservation
- provide better Government support to remnant vegetation protection and management

Cabinet also directed that

> *existing controls on clearing under the Soil and Land Conservation Act and the Country Areas Water Supply Act be augmented by a system to ensure that other natural resource conservation issues are considered before any further clearing occurs on private land.*

and that

> *in Shires with greater than 20% total remnants the Commissioner of Soil and Land Conservation will decide on the need to inform the Environmental Protection Authority of any clearing proposal, in accordance with an agreed Memorandum of Understanding.*

This Memorandum of Understanding implements those directives.

It does so recognising that under current provisions of the Soil and Land Conservation Act, the Wildlife Conservation Act, the Conservation and Land Management Act, and the Country Areas Water Supply Act, there is no jurisdiction over certain natural resource conservation issues.

In these issues the Environmental Protection Act currently provides the only statutory mechanism for controlling some aspects of land clearing.

The aim of this memorandum is to implement a system of evaluation for proposals to clear land for agricultural purposes in Western Australia in which:

- a range of natural resource conservation issues are considered in one streamlined process;
- landholders and the general public can be confident that there are clear and objective criteria in place against which proposals are evaluated, and;
- expedited procedures ensure that proposals are treated speedily, with the requirements of a range of Acts and authorities brought together into one streamlined process.

2. Obligations

The parties to this memorandum agree to work together to achieve an integrated evaluation of proposals from landholders to clear native vegetation.

Evaluation processes, operated under the Soil and Land Conservation Act and the Environmental Protection Act, will be complemented by input and advice from Agriculture Western Australia, the Department of Environmental Protection, the Department of Conservation and Land Management, and the Water and Rivers Commission.

The key principles agreed to through this memorandum are outlined below, and the more detailed operational procedures and evaluation criteria through which the memorandum will be implemented are contained in the Schedules attached to this memorandum.

This agreement implements a single evaluation process in which the statutory requirements of a number of separate Acts, and the obligations of a number of national agreements, can be met in a coordinated manner.

Schedule 1 lists the statutory requirements central to this memorandum.

3. Interpretation

This memorandum applies to proposals to clear more than one hectare of native vegetation on rural zoned land in southern Western Australia, south or west of the eastern boundaries of the main agricultural areas.

On land zoned for other purposes, it is considered that issues relating to biodiversity maintenance and sustainable land use need to be considered through other mechanisms, in particular the statutory planning process.

In areas where more than 20% of the original vegetation remains, the process will follow the four-level evaluation procedures implemented through this memorandum.

In shires where less than 20% of the original vegetation remains within the main agricultural area, the Commissioner for Soil and Land Conservation already considers further clearing carries an unacceptable risk of increased land degradation, as defined in the Soil and Land Conservation Act.

In these areas the Commissioner will object to any clearing unless the proposal has been assessed by the Environmental Protection Authority and approved by the Minister for Environment. Landholders will be expected to provide all information needed for that evaluation.

The Commissioner is willing to accept submissions from local government authorities, Land Conservation District Committees, and government agencies on other areas where any further clearing carries an unacceptable risk of increased land degradation, as defined in the Soil and Land Conservation Act.

Schedule 2 contains a map of the agricultural region of southern Western Australia, together with a list of the main areas where further clearing is considered to carry an unacceptable risk of increased land degradation.

Landholders will be able to withdraw from the evaluation process without the imposition of conditions (such as a memorial being placed on the title), but if the assessment process runs its course landholders may be subject to some conditions even if clearing is not approved.

As their proposal passes through each level of evaluation, as outlined in Schedule 5, landholders will be sent a letter informing them of the progress of their application, and the results of evaluation at that particular level of assessment.

The system will be operated so as to give the landholder "early warning" of any costs or statutory implications likely to arise as the process continues.

If the landholder wishes to appeal against a decision to object to clearing made at any level then the normal appeal provisions of the Soil and Land Conservation Act are available.

However, the Commissioner will inform landholders that it would be prudent to first seek EPA recommendations on approval of their clearing proposal, as EPA advice and conditions imposed by the Minister for the Environment can override any decision made under the Soil and Land Conservation Act.

4. Clearing Proposal Management System

4.1 Environmental Policy

Clearing will only be allowed where it can be shown that it will not cause significant land or water degradation nor threaten nature conservation values or, in the case of EPA assessment, any other values included under the Environmental Protection Act.

4.2 Planning

Evaluation of the impact of a clearing proposal will be undertaken against documented criteria. These cover a range of issues and statutory responsibilities, but will be arranged in a logical sequence for ease of assessment, and to help landholders to have a clear understanding of the whole-of-government concerns and assessment processes.

Criteria will not only reflect the existing situation, but also the impact of future management practices on the acceptability of the proposal.

Criteria will be revised as necessary to reflect further studies and increased understanding of clearing impacts.
Schedule 3 lists the evaluation criteria.

The streamlined process is supported by documents which integrate the criteria, along with accompanying technical manuals.

Schedule 4 contains the Property Report Form and the technical manuals.

Key elements of the evaluation process are:

- the various evaluation factors will be examined in the sequence most likely to achieve prompt decisions on proposals;
- Agriculture WA assessment officers will take into account those biodiversity factors which can be readily resolved from existing information, including map analysis, in the initial assessment of a proposal;
- CALM, Water and Rivers Commission and the Department of Environmental Protection will provide access to readily available information, but where further information needs are clearly identified during evaluation this will be the responsibility of the proponent;
- information collected during an evaluation will be maintained in a common format, to enable other authorities or agencies to continue the assessment process if interests beyond those covered by the powers of the Commissioner are identified;
- acting on the advice from those agencies, the Commissioner may refer a particular proposal to an authority or agency with the statutory responsibility to control adverse impacts if the proposal was to proceed. Agencies maintain the right to independently assess proposals against their statutory responsibilities;
- applications to clear made to the Water and Rivers Commission in the six controlled catchments of the South West will enter the single evaluation process at Level 1;
- the key role of the Environmental Protection Authority will be to conduct the Level 4 review for those proposals where natural resource conservation factors are identified which the powers of the Commissioner or the agencies are unable to resolve. This evaluation will follow on from Levels 1, 2 and 3 under the Commissioner's process, and build on the information collected by the assessing officer and staff from agencies involved up to Level 3.

4.3 Implementation and operation

4.3.1 Roles and responsibilities

The single evaluation process established by this memorandum takes account of the statutory assessment and decision-making roles of the Commissioner, the EPA, and the signatory agencies.

A working group will be established from the four agencies, with the key role of providing advice to the Commissioner on the conservation risks associated with each clearing proposal. That advice will also be available to the EPA, if the proposal reaches formal assessment.

Executive support for the working group will be provided by Agriculture Western Australia.

Schedule 5 details the overall evaluation process to be followed, and the common format for collation of information.

Schedule 6 details the arrangements for proposals to clear land in the six control catchments defined as "controlled land" in Section 12AA of the Country Areas Water Supply Act.

Schedule 7 is an outline of the evaluation process being followed by the EPA for those clearing proposals referred to it by the Commissioner .

4.3.2 Documentation

Landholders proposing to clear will be required to publicly advertise their intent through the main local newspaper, or equivalent rural newspaper, and through the Saturday morning edition of the West Australian.

The Commissioner will inform local Land Conservation District Committees, relevant catchment groups, and local government authorities of the proposal.

Through these communications individuals, groups and councils will be asked to provide relevant comment to the Commissioner, along with any relevant information they may have on the area in question.

In addition, all proposals that are formally assessed by the EPA will follow existing EPA procedures, which make the main documentation available for public comment.

Sensitive information supplied by the agencies, such as the precise location of rare flora, will only be made publicly available with the permission of the agency involved.

Ensuring the appropriate level of detail is supplied to the EPA, will be the responsibility of the agency's representative on the working group.

4.3.3 Adjustment measures

It is now recognised that the original alienation and clearing of land, along with many traditional agricultural practices, has led to unacceptable levels of land degradation and biodiversity loss. As a result, agricultural industries are moving towards the development and adoption of farming systems that are ecologically and economically sustainable.

While sustainability is a responsibility of the whole industry, it is acknowledged that in the current transition period some individual landholders will carry a greater economic burden than others .

Where individual landholders are unlikely to gain permission to clear significant areas of their property, opportunities will be sought to assist them adjust to any economic hardship that may follow.

These adjustment measures will also seek to ensure responsible management of the land into the future, under either public or private ownership. Wherever possible, adjustment will be delivered in conjunction with local or regional landcare programs.

Where proposals to clear are objected to, members of the working group will work together to assist landholders where possible.

Schedule 8 is an outline of the processes available to help landholders adjust to situations where clearing is no longer allowed.

4.4 Internal audit and performance assessment

The Commissioner for Soil and Land Conservation and the Department of Environmental Protection will maintain audited records of their implementation of the MOU, and the audit reports will be available to the EPA.

It will be the responsibility of each organisation to evaluate its involvement in the evaluation process against its own performance indicators, and to propose subsequent adjustments to this memorandum. Adjustments can be negotiated directly between the signatories.

Adjustments to the schedules may be developed through the working group, and implemented subject to the agreement of the signatories.

Changes to this Memorandum of Understanding may be recommended by the working group. Once agreed to by the signatories, changes will be publicly advertised through the Environmental Protection Authority's weekly advertisement in the West Australian.

4.5 Review

Special purpose six monthly reports will be prepared by the Commissioner, listing the proposals evaluated, the results of those evaluations, and any adjustments made to the guidelines.

These reports will be made available to the Soil and Land Conservation Council, the Environmental Protection Authority, the National Parks and Nature Conservation Authority, the Water and Rivers Commission, and the Chief Executive Officer of each of the agencies.

It is anticipated that much of this material will become publicly available through the annual reports of the Soil and Land Conservation Council, Agriculture Western Australia, and the EPA.

AGREED TO BY

.....	7/3/97	.....	7 March 1997
Commissioner for Soil and Land Conservation	Date	Chairman Environmental Protection Authority	Date
.....	6.3.97	.....	7.3.97
Chief Executive Officer Department of Environmental Protection	Date	Chief Executive Officer Agriculture Western Australia	Date
.....	7/3/97	.....	7.3.97.
Executive Director Department of Conservation and Land Management	Date	Chief Executive Officer Water and Rivers Commission	Date

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Schedule 1

STATUTORY REQUIREMENTS

This memorandum will enable a number of specific statutory requirements to be met in a coordinated process. The main responsibilities involved are outlined below.

COMMISSIONER FOR SOIL AND LAND CONSERVATION

Under the *Soil and Land Conservation Act 1945* and subsequent amendments the Commissioner is responsible for, among other duties "the prevention and mitigation of land degradation"[1].

Under the Act land degradation includes:

"(a) soil erosion, salinity, eutrophication and flooding; and

(b) the removal or deterioration of natural or introduced vegetation

that may be detrimental to the future use of the land."[2]

ENVIRONMENTAL PROTECTION AUTHORITY

The *Environmental Protection Act 1986,* which establishes the Environmental Protection Authority, has the objectives of "the prevention, control and abatement of environmental pollution, for the conservation, preservation, protection, enhancement and management of the environment and all matters incidental to or connected with the foregoing."[3]

As part of achieving these objectives, under Part IV of the Act (*Environmental Impact Assessment*) the EPA assesses a wide range of proposals that may have a significant effect on the environment.

AGRICULTURE WESTERN AUSTRALIA

Departmental officers have specific expertise in the sustainable management of agricultural practices, and in assessing land degradation hazards. Agriculture Western Australia has a number of offices in country areas. The Commissioner for Soil and Land Conservation operates under the direction of the CEO and the Minister, and departmental officers assist the Commissioner to carry out his duties.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Departmental officers have specific expertise in the integration and assessment of a wide range of environmental factors. They provide general advice to the EPA on environmental matters, and manage and administer the formal environmental assessment process on behalf of the EPA.

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[1] *Soil and Land Conservation Act 1945,* Section 13 (a)

[2] *Soil and Land Conservation Act 1945,* Section 4, "Interpretations"

[3] *Environmental Protection Act 1986,* Introduction.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

Departmental officers have specific expertise in the management of nature conservation issues. Under the *Conservation and Land Management Act 1984*, the Department is responsible for the conservation and protection of flora and fauna throughout the State, and in particular the administration of the *Wildlife Conservation Act 1950.* Under the Wildlife Conservation Act, flora and fauna may be declared by the Minister for Environment to be specially protected as "threatened flora and fauna". For these species the Department has an added responsibility to ensure their conservation. In the case of threatened (declared rare) flora, they may not be taken (including by clearing) without the written permission of the Minister for the Environment.

The Department maintains a range of detailed information on flora and fauna species, habitats, and their conservation requirements.

WATER AND RIVERS COMMISSION

Departmental officers have specific expertise in the monitoring and management of the State's waterways and groundwater resources. They have additional responsibilities under *the Country Areas Water Supply Act 1947; (Clearing Licence) Regulations 1981*, which restrict clearing in six declared catchments in the South West.

WHOLE OF GOVERNMENT AGREEMENTS

The Western Australian Government is signatory to a number of national environmental agreements. These include:

Inter-Governmental Agreement on the Environment

This agreement, adopted in 1992, sets standards of demarcation and cooperation between Federal, State and Local Governments, and endorses a number of environmental principles. Included in its provisions is recognition that policy, legislative and administrative frameworks should provide for "the assessment of the regional cumulative impacts of a series of developments and not simply the consideration of individual development proposals in isolation".[4]

Ecologically Sustainable Development

The National Strategy for Ecologically Sustainable Development seeks to promote "using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased".[5]

National Strategy for the Conservation of Australia's Biological Diversity.

Amongst its other provisions, this document calls for effective polices and controls for the management and conservation of native vegetation on private and public lands, and for governments to "ensure that criteria for assessing land clearance applications take account of biological diversity conservation, land protection, water management, and landscape values."[6]

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[4] *Inter-Governmental Agreement on the Environment*, Schedule 2, clause 3 (ii)

[5] *National Strategy for Ecologically Sustainable Development*, p6.

[6] *National Strategy for the Conservation of Australia's Biological Diversity*, p25.

Schedule 2

AREA COVERED BY THIS MEMORANDUM

This section outlines those areas for which routine assessment of clearing proposals will be undertaken under this Memorandum of Understanding. Both the Commissioner for Soil and Land Conservation and the Environmental Protection Authority have a statutory responsibility to intervene in situations where land degradation or other environmental damage is likely to occur as the result of any land management practice.

Geographic area

This memorandum applies to proposals to clear on rural zoned land in southern Western Australia, south or west of the eastern boundaries of the main agricultural areas, as noted on the attached map.

On land zoned for other purposes, it is considered that issues relating to biodiversity maintenance and sustainable land use need to be considered through the planning process, through the statutory control of a range of agencies, and through the environmental assessment process.

Eligibility for inclusion in assessment process

In areas where more than 20% of the original vegetation remains, the Commissioner will, upon receipt of a Notice of Intent to clear from a landholder, commence an evaluation process to determine if clearing can proceed without causing a land degradation hazard or threatening nature conservation values. This evaluation will follow the four-level process outlined in Schedule 5.

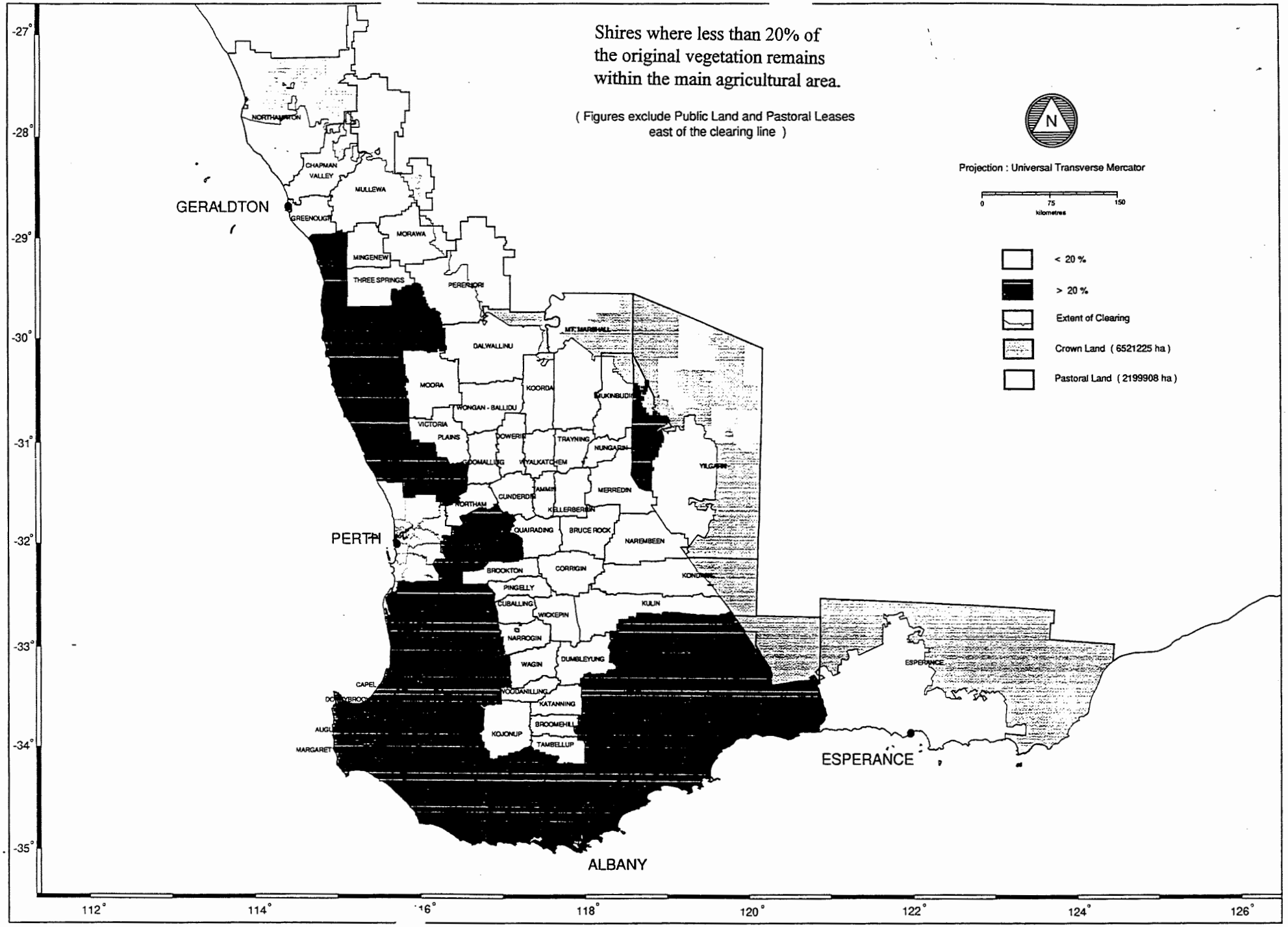
In a number of areas the impacts of past clearing are so severe that the Commissioner already considers further clearing carries an unacceptable risk of increased degradation. These areas include shires where less than 20% of the original vegetation remains within the main agricultural area. In these areas the Commissioner will object to any clearing unless the proposal has been assessed and recommended for approval by the Environmental Protection Authority. Landholders will be expected to provide all information needed to demonstrate that the proposal will not threaten nature conservation values or cause land degradation.

Those areas where there is less than 20% of the original vegetation remaining in the main agricultural area are marked on the attached map, and include:

- All of the Shires of Brookton, Broomehill, Bruce Rock, Corrigin, Cuballing, Cunderdin, Dowerin, Dumbleyung, Goomalling, Greenough, Katanning, Kellerberrin, Kojonup, Koorda, Kulin, Merredin, Mingenew, Moora, Narambeen, Narrogin, Northam, Nungarin, Pingelly, Quairading, Tambellup, Tammin, Three Springs, Trayning, Victoria Plains, Wagin, Wickepin, Wongan-Ballidu, Woodanilling, Wyalkatchem.
- Shires on the eastern edge of the wheatbelt where the agricultural area of the shire has less than 20% remnant vegetation. This includes the agricultural areas of the Shires of Chapman Valley, Dalwallinu, Esperance, Kondinin, Mt. Marshall, Mukinbudin, Mullewa, Morawa, Northampton, Perenjori, and Yilgarn.

Further definition can be expected of those areas where there is already an unacceptable risk of degradation if further clearing was to occur. The Commissioner will remain open to submissions from local government authorities, Land Conservation District Committees, catchment and conservation groups and government agencies on other areas where any further clearing carries an unacceptable risk of increased degradation.

Generally, the Commissioner will object where further clearing on a property will reduce the area of remnant vegetation, or equivalent deep rooted vegetation, to below 20% of the total contiguous property area. Exceptional cases will be considered if the landholder can demonstrate that clearing will not cause land degradation or threaten nature conservation values.


Shires where less than 20% of the original vegetation remains within the main agricultural area.
(Figures exclude Public Land and Pastoral Leases east of the clearing line)
N
Projection : Universal Transverse Mercator
0
75
150
kilometres
< 20 %
> 20 %
Extent of Clearing
Crown Land (6521225 ha)
Pastoral Land (2199908 ha)
GERALDTON
PERTH
ALBANY
ESPERANCE
NORTHAMPTON
CHAPMAN VALLEY
MULLEWA
GREENOUGH
MORAWA
MINGENEW
THREE SPRINGS
PERENJORI
DALWALLINU
MT. MARSHALL
MOORA
KOORDA
MUKINBUDIN
WONGAN - BALLIDU
VICTORIA PLAINS
DOWERIN
TRAYNING
NUNGARIN
GOOMALLING
WYALKATCHEM
YILGARN
CUNDERDIN
TAMMIN
MERREDIN
NORTHAM
KELLERBERRIN
QUAIRADING
BRUCE ROCK
NAREMBEEN
BROOKTON
CORRIGIN
KONDININ
PINGELLY
CUBALLING
KULIN
WICKEPIN
NARROGIN
DUMBLEYUNG
WAGIN
CAPEL
DONNYBROOK
WOODANILLING
KATANNING
AUGUSTA
BROOMEHILL
KOJONUP
MARGARET RIVER
TAMBELLUP
-27°
-28°
-29°
-30°
-31°
-32°
-33°
-34°
-35°
112°
114°
116°
118°
120°
122°
124°
126°

Schedule 3

ASSESSMENT CRITERIA

This section lists the main factors to be considered in the assessment of proposals to clear, and defines the main assessment criteria to be used. Detailed guidelines referred to are contained in the schedules attached to this memorandum.

Factor	Decision making is based on	Procedure
Likelihood of land and water degradation	*Procedures for the administration and assessment of clearing and protection of native vegetation in Western Australia*, Agriculture WA (1996 revision in edit). Water use standards for various land uses are currently under development by Agriculture Western Australia, and these will be included in the assessment of any proposals for "off-set" clearing.	This document guides the operation of Agriculture Western Australia assessment officers. It contains criteria directly relevent to the Soil and Land Conservation Act, and also integrates criteria for the other factors.
Waterway and wetland protection	Impact on downstream nature conservation values to be determined in consultation with CALM if appropriate. This will be particularly important if land vested in the National Parks and Nature Conservation Authority is likely to be affected by a proposal. To be augmented by the Environmental Protection Authority's *Environmental Protection Policy for South West Wetlands* when the current draft has been finalised in a manner acceptable to the agencies involved in this memorandum.	
Water resource protection	Water use standards are currently under development which will enable impacts from clearing to be more accurately assessed, and for off-set clearing proposals to be evaluated against water use.	Criteria drawn from these will be included in assessment at all levels through the Property Report Form

Biological diversity • Presence of declared Rare Flora and specially Protected Fauna	Species declared by the Minister as rare flora and specially protected fauna, and published in notices in the Government Gazette.	With the agreement of CALM, and subject to technical constraints, regional Agriculture WA assessing officers will be supplied a copy of the appropriate databases to search while preparing overview information at Level 1 and 2. Through the Level 2 and 3 assessment process CALM will be notified of any items of interest that arise. Database search will reveal known occurrences and, based on regional information, may indicate the likelihood of other occurrences. The need for a detailed search of the property may thus be indicated.
• Threatened communities	Areas identified by CALM.	Database search as for declared rare flora wherever technically possible.
• Priority flora	Through search of herbarium data	As for DRF when technically possible.
• Impact on regional ecological processes and habitats • representation of ecological communities • viability if vegetation retained	Rod Safstrom. July 1996. *Environmental Evaluation of Native Vegetation in the Wheatbelt of Western Australia - Principles and criteria used to appraise land clearing proposals.* Consultancy report to Department of Environmental Protection.	Criteria drawn from this document to be included in assessment at all Levels through the Property Report Form.
• environmental weeds	Reliant on advice from the assessing officers	
• areas of particular importance for research (for example, with genetic resources of potential economic use)	This will depend on existing knowledge of the site.	
• landscape values	*Reading the Remote - Visual Resource Management System*, RMS, CALM This document represents the most appropriate regional guide currently available.	Landscape is included in the Property Report Form, but further work is required to develop more precise criteria.
Geological importance	This will depend on existing knowledge of the site by the assessing officer and agencies.	
European heritage	National/State heritage legislation	It is the responsibility of the landholder to ensure that items of importance to the Register of the National Estate are not affected
Aboriginal heritage	Aboriginal Heritage Act	It is the responsibility of the landholder to ensure that items of importance to the Aboriginal Heritage Act are not affected

Schedule 4

ASSESSMENT MANUALS

REGULATORY SUPPORT GUIDEBOOK

4.1 Following adoption of the Memorandum of Understanding a Regulatory Support Guidebook will be publicly available.

SUPPORTING MANUALS

The key supporting manuals attached are:

4.2 Rod Safstrom. July 1996. *Environmental Evaluation of Native Vegetation in the Wheatbelt of Western Australia - Principles and criteria used to appraise land clearing proposals*. Consultancy report to Department of Environmental Protection.

4.3 *Procedures for the administration and assessment of clearing and protection of native vegetation in Western Australia*, Agriculture WA (1996 revision in edit). This includes the current version of the Property Report Form initially developed by the DEP.

4.4 Water and Rivers Commission. March 1996. *Policy and Guidelines - Licences to clear Indigenous Vegetation in Catchments subject to Clearing Control Legislation.*

Supporting Manual 4.2
Memorandum of Understanding for the protection of remnant vegetation on private land in the agricultural region of Western Australia

ENVIRONMENTAL EVALUATION OF NATIVE VEGETATION IN THE WHEATBELT OF WESTERN AUSTRALIA

Principles and Criteria Used to Appraise Land Clearing Proposals

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INTRODUCTION

The purpose of this paper is to provide criteria for remnant vegetation assessment for the Department of Environmental Protection. These criteria aim to maintain a living landscape where biological diversity and ecological processes continue amidst more economic land uses. A major policy influence is Ecological Sustainable Development, our commitments under The National Strategy for Conservation of Australia's Biological Diversity and the need to ensure that all Western Australian species of flora and fauna, native ecosystems and communities can survive, flourish, retain their potential for evolutionary potential **and** contribute to sustainability in agricultural industries.

The paper discuss principles and criteria which may apply to all or part of an area of land under the following headings:

- **Regional processes** - importance of the land in maintaining viable ecological processes.
- **Representation** - role in conserving the genetic diversity of the region.
- **Viability** - survival of natural values.

The criteria have been selected with recognition of the following constraints:

- Operational personnel must be able to readily comprehend and implement assessment criteria and methods.
- The science behind the criteria must be clearly stated.

Criteria are considered independently so that people can ascribe different weights according to their priorities.

An assessment methodology, assessment forms and sources of data have been developed in parallel with this study by Dr. Gillian Craig. It is anticipated that many proposals will be handled through a desk study, some will require a rapid field assessment and a few will require detailed assessment of flora and fauna.

SOURCES OF INFORMATION

This paper, unless otherwise quoted, is based on the procedures outlined in Safstrom, R. 1995. *Conservation Values of Small Reserves in the Central Wheatbelt of Western Australia: A Framework for Evaluating the Conservation Values of Small Reserves*, an unpublished report for the Department of Conservation and Land Management, Western Australia and the Water Authority of Western Australia. This paper provides a more detailed analysis of many of the criteria used and reasons why other criteria are considered inappropriate.

Ideas outlined in the Department of Conservation and Natural Resources, Victoria *Planning Guidelines for Native Vegetation Retention Controls (1996);* the *Principles of Clearance of Native Vegetation* in the South Australian Native Vegetation Act 1991 and *Land Assessment Process for Crown Lands in New South Wales,* Land Assessment Branch, Department of Conservation and Land Management, New South Wales are incorporated in the report.

Input from the following people is acknowledged: Charles Nicholson, Keith Bradby, Angas Hopkins, Richard Hobbs, Martin Choppin, Vaughan Cox, Ken Atkins, Penny Hussey.

Other References

Burgman, M. A. (1988). *Spatial analysis of vegetation patterns in south western Western Australia: implications for reserve design.* Australian Journal of Ecology 13, 415-429.

Department of Conservation and Land Management (1994). *Reading the Remote. Landscape Characters of Western Australia.*

Hopper, S.D. (1992). *Patterns of plant diversity at the population and species levels in south-west Australian Mediterranean ecosystems.* Biodiversity of Mediterranean ecosystems in Australia. Ed. R. Hobbs. Surrey Beatty & Sons, NSW. Pp. 27-46.

Kitchener, D. J., Chapman, A. & Muir, B. G. (1980). *The conservation value for mammals of reserves in the Western Australian wheatbelt.* Biological Conservation 18, 179-207.

Wallace, K. J. (1989). (personal communication) *A remnant vegetation protection scheme for private farmland in Western Australia.* Working paper, 5th Australian Soil Conservation Conference.

PRINCIPLES FOR EVALUATION OF NATIVE VEGETATION

The tables in this section provide a summary of principles to be considered when assessing priorities for retention of native vegetation. The third column can be used to note whether the principles apply to a particular piece of native vegetation. Criteria and justification for the principles are detailed in *Criteria for Evaluation Principles* on page 6.

1. REGIONAL PROCESSES

Item	Principle - native vegetation should be retained if:	Yes/No/ Partly
1.1 Water	the clearance of vegetation is likely to cause deterioration in surface and groundwater catchments which result in increases in salinity and eutrophication.	
1.2 Soil	the clearance of vegetation is likely to contribute to soil erosion, waterlogging or flooding	
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	
1.4 Aesthetics and Cultural	the land provides high landscape values, has special physiographic features, aboriginal sites or heritage value	

2. REPRESENTATION

Item	Principle - native vegetation should be retained if:	Yes/No/ Partly
2.1.1 Flora	it contains or is likely to contain threatened flora or flora of special interest.	
2.1.2 Plant communities	it contains or is likely to contain threatened plant communities	
2.1.3 Diversity	it contains areas of very high species richness	
2.1.4 Wetlands	it contains wetlands of significance	

2. REPRESENTATION (continued)

Item	Principle - native vegetation should be retained if:	Yes/No/ Partly
2.1.5 Local representation	within a 15 kilometre radius of the remnant there is less than 20% of the original cover of any plant community on the land represented by: (i) viable occurrences in NPNCA National Parks or Nature Reserves. (ii) viable occurrences in other Crown Land or Remnant Vegetation Protection Scheme covenants.	
2.1.6 Regional representation	it includes vegetation communities not well conserved in the region compared with the original cover as represented in the Interim Biographical Representation in Australia (IBRA)	
2.2.1 Wildlife	it contains or is likely to contain rare fauna	
2.2.2 Habitats	it has significance as habitat for wildlife or if a loss of diversity by clearing part of the land will adversely impact on fauna dependent on a mosaic of vegetation types.	

3. VIABILITY

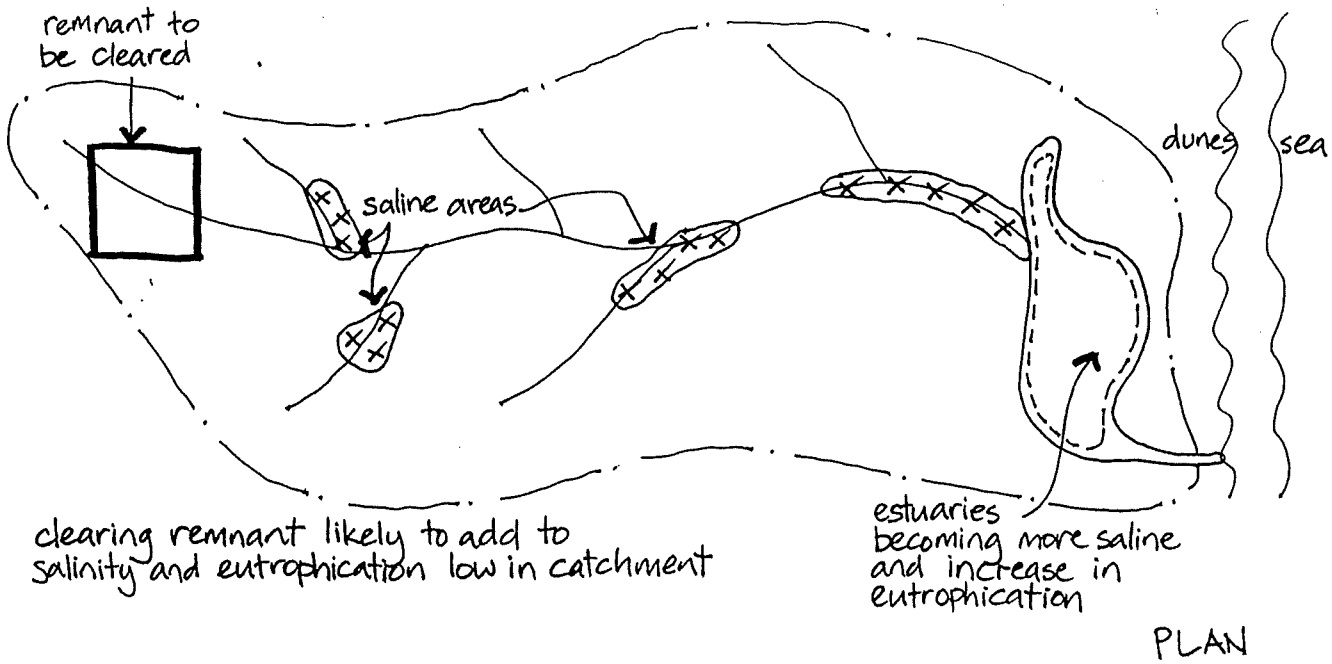
Item	Principle - survival of natural values over the next 50 years.	Yes/No/ Partly
3.1 Area	Large areas have higher conservation values, the maximum possible area of a remnant should be retained. Groups of small remnants can support fauna able to move between remnants and threatened species.	
3.2 Shape	Very narrow areas of retained vegetation are less likely to be viable and of reduced value as corridors.	
3.3 Intactness	Remnants with little or no intact vegetation are unlikely to be viable.	
3.4 Diseases and Pests	The vegetation should be free of major diseases and pests such as Dieback. Disease free vegetation is more important for retention if similar vegetation communities in nearby reserves are diseased.	
3.5 Invasive plants	Presence of invasive plants capable of, or with potential to, disrupt ecosystem processes.	
3.6 Adjacent uses	Adjacent land uses impacting on the viability of the land must be considered.	

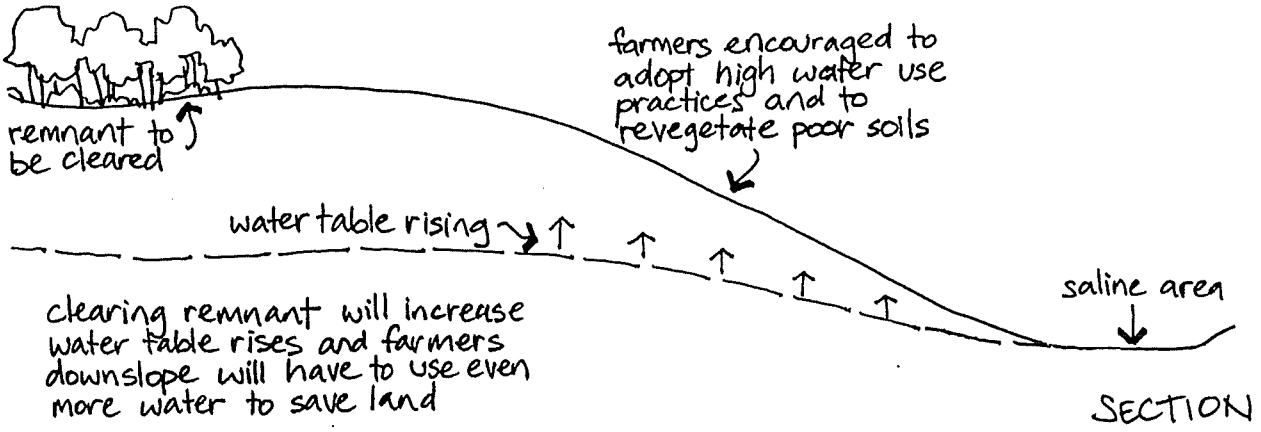
CRITERIA FOR EVALUATION PRINCIPLES

The tables in this section are designed to detail and provide justification for the Evaluation Principles on page 4 and 5. Diagrams are provided on the adjacent page or below the criteria to demonstrate the criteria in visual format. The third column indicates whether the criterion can be evaluated by desk study or if a rapid or detailed field survey is required.

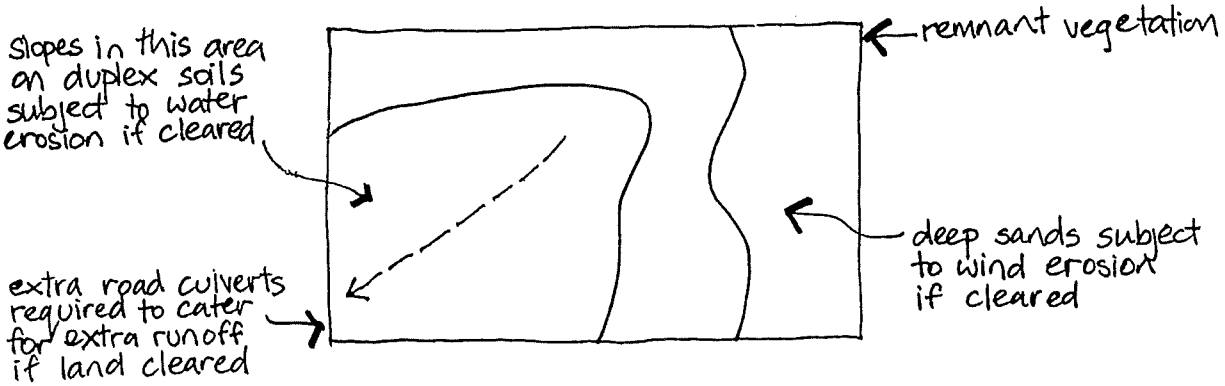
1. REGIONAL PROCESSES - importance of the native vegetation in maintaining viable ecological processes

Criteria	Justification for criteria	Study type
1.1 Water There should be no deterioration in catchment processes - groundwater, salinity and eutrophication	The impact of clearing and subsequent land use on both surface and underground catchments needs to be considered. For example if the clearance of vegetation is likely to result in a rise in the water table or increasing eutrophication then caution is required. It may be possible to calculate the additional groundwater recharge as a result of clearing native vegetation. Any increase in recharge in catchments known to have rising ground water is undesirable as extra amelioratory works will have to undertaken elsewhere in the catchment to make up for the increase. Most valley woodlands are currently under threat in the wheatbelt from rising water tables in the next 50 years. They should be retained on the premise that landscape management will be initiated and water table rises arrested and that if degraded by salinity will be of little agricultural value.	Desk study, information on underground water available for some areas
1.2 Soil There should be no deterioration in soil processes - soil erosion and water logging	Remnant vegetation plays a role in preventing soil erosion by wind and water, and waterlogging. Native vegetation needs to be retained where land capability mapping indicates a high likelihood (Classes IV and V) of soil degradation if the land is cleared.	Desk study





CRITERIA 1·1 CATCHMENT PROCESSES

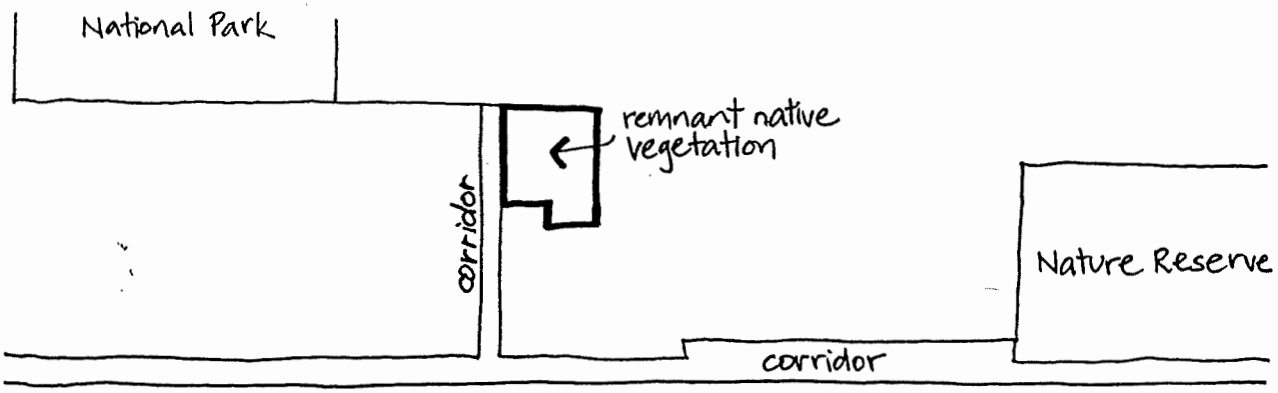


CRITERIA 1·2 SOIL PROCESSES

Catchment and soil processes affected by clearing native vegetation

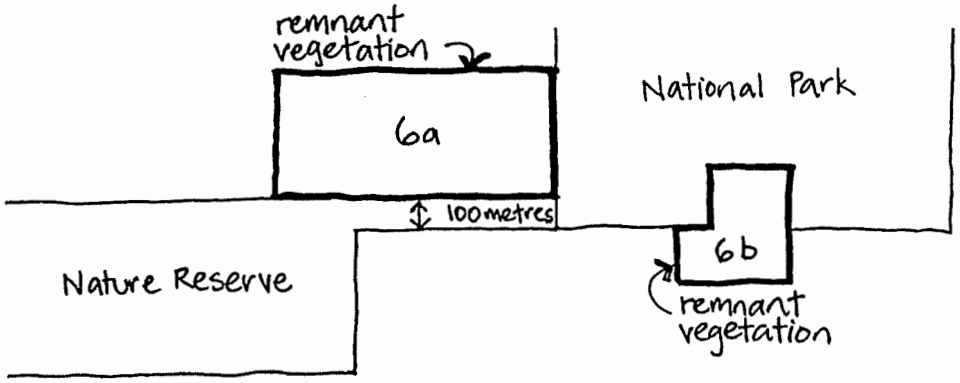
1. REGIONAL PROCESSES (continued)

Criteria	Justification for criteria	Study type
1.3.1 Corridors Corridors or stepping stones between areas of conservation land requires protection	Native vegetation close to other remnants and with good connecting corridors have greater viability for many species. Due to lack of consistent data and the species specific nature of the benefits of connectivity it is difficult to recommend criteria for corridor and stepping stone design. It is assumed that even narrow bands of native vegetation (5-10 metres) with breaks less than 400 metres are useful for some species. Other species will require continuous linkages of wide corridors (500 metres plus) containing core areas of undisturbed vegetation which are habitats in their own right.	Desk study
1.3.2 Buffers Native vegetation which is adjacent, an inlier or provides a buffer to conservation land requires protection	Native vegetation adjacent to conservation reserves improves the viability and conservation values of the reserve by providing larger core areas, buffers the reserve from edge effects, sometimes consolidates boundaries and sometimes add plant communities not represented or under represented in the reserve. The width of buffers required will depend on the robustness of the vegetation associations, with vegetation communities on nutrient poor soils requiring smaller buffers than communities such as woodlands on richer soils.	Desk study
1.4.1 High landscape -aesthetic values - should be maintained	The familiar rural landscape of farmland fringed and dotted with trees and patches of bush can only be maintained with positive action. Retain vegetation with high scenic quality, strongly defined vegetation patterns, unique specimen stands, areas of high plant diversity which display distinctive textural and colour patterns and dramatic displays of seasonal colour (*Reading the Remote Landscape Characters of Western Australia).*	Desk study and rapid field survey.
1.4.2 Special physiographic features require protection	Special features on the land that may be of community interest such as outcropping dolerite dykes, granite outcrops, breakaways.	
1.4.3 Significant aboriginal sites require protection	Presence of Aboriginal sites on the land	



The remnant provides a corridor or stepping stone between areas of conservation land

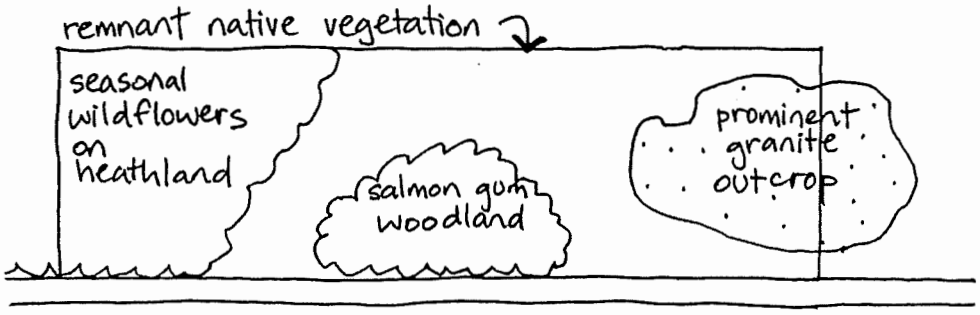
CRITERIA 1·3·1 CORRIDORS AND STEPPING STONES



6a: The remnant is adjacent to and provides a corridor between conservation land

6b: The remnant is an inlier and provides a buffer to conservation reserves

CRITERIA 1·3·2 BUFFERS AND INLIERS

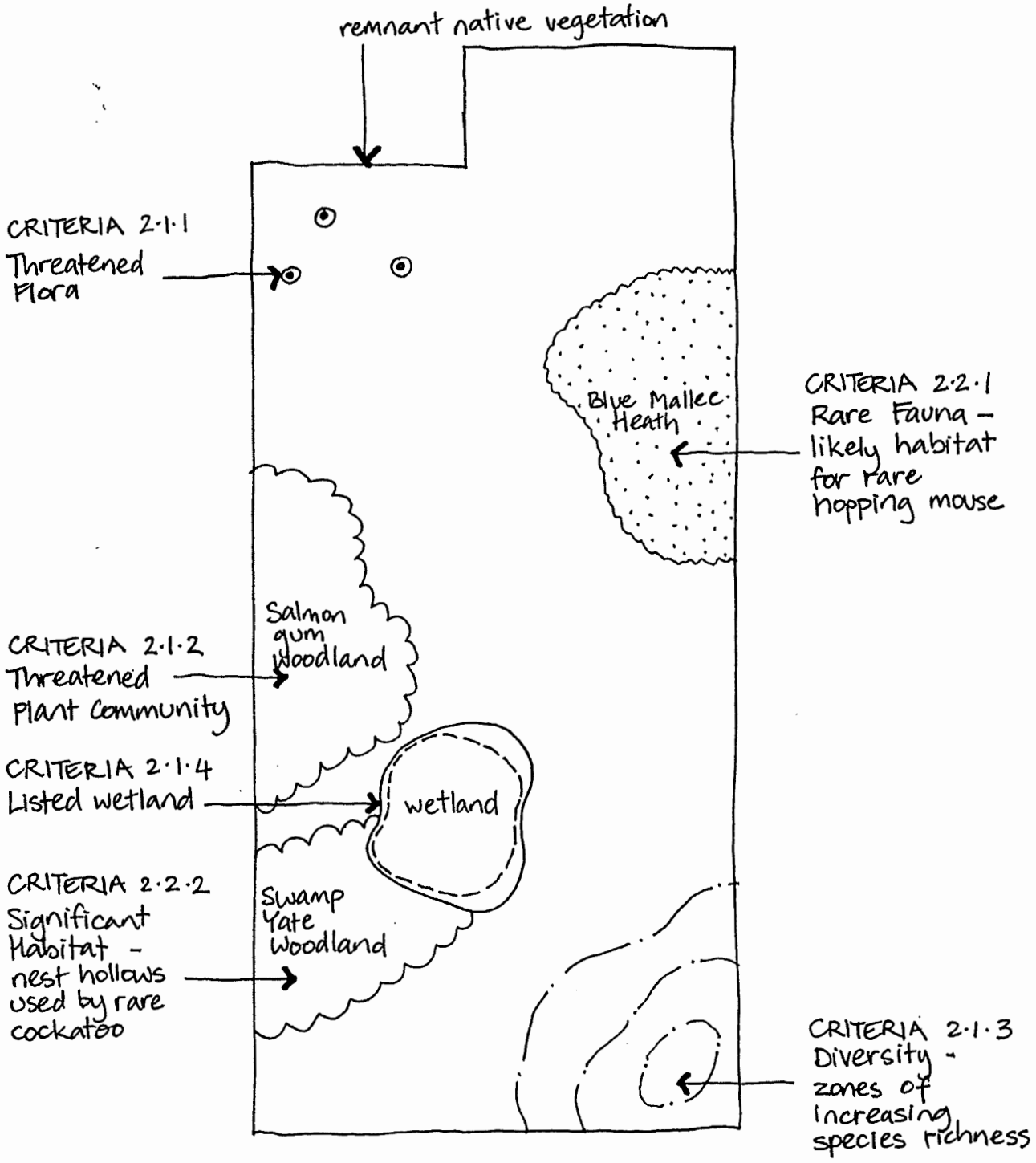


CRITERIA 1·4·1 HIGH LANDSCAPE VALUES

Native vegetation provides corridors and stepping stones for wildlife, buffers for National Parks and Nature Reserves and aesthetic values

2. REPRESENTATION - role in conserving the genetic diversity of the region

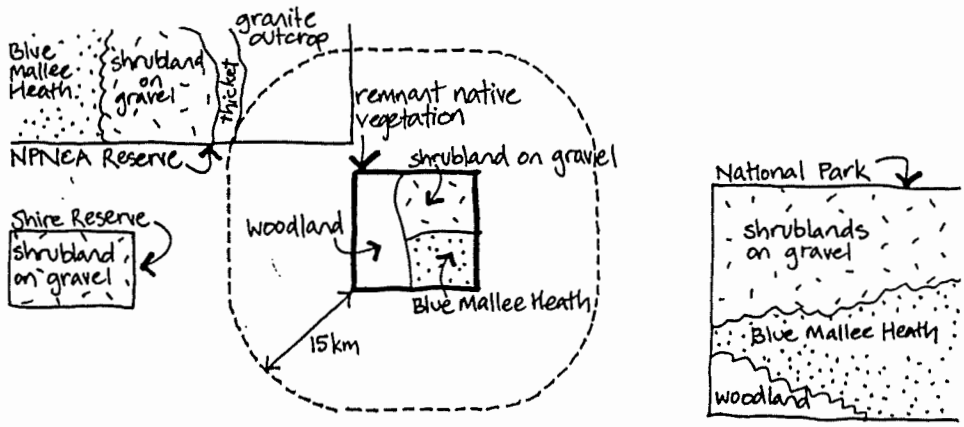
Criteria	Justification for criteria	Study type
2.1.1 Threatened flora, flora of special interest as listed by CALM require protection	Native vegetation which contains or is likely to contain threatened species, species of special interest should be a high priority for protection. *This study adopts the gazetted lists of threatened flora and priority lists as maintained by CALM.*	Information known from previous studies
2.1.2 Threatened plant communities as defined by CALM or Priority one and two communities as listed in the RVPS require protection	Work by CALM is aimed at defining and ranking threatened plant communities but there has been little work in the wheatbelt at this stage. *This study uses the vegetation community priorities defined in the Remnant Vegetation Protection Scheme* . Other communities may also be important such as relictual Gondwanan genera/habitats	Desk study of Beard vegetation mapping, possibly rapid field assessment to identify vegetation communities
2.1.3 Diversity - areas of high species richness (over 25 -30 perennial species per 100 square metres) require protection	Where areas of very high species richness have been identified (for example by isoflors) they are a high priority for protection. Plant communities known to have high ephemeral species richness are also a high priority for protection but assessment results will depend on the season. Native vegetation with overall high species richness are also a high priority for protection but a detailed survey is required.	Desk study, detailed survey may be required
2.1.4 Wetlands as listed are a priority for protection	Wetlands (and their surface and groundwater catchments) recorded in Table 1 of Protected Wetlands under the South West Agricultural Zone Wetlands, Environmental Protection Policy have a high priority for protection. Wetlands recognised as significant at a district level (refer DEP and CALM) are also a priority for protection.	Desk study and rapid field assessment



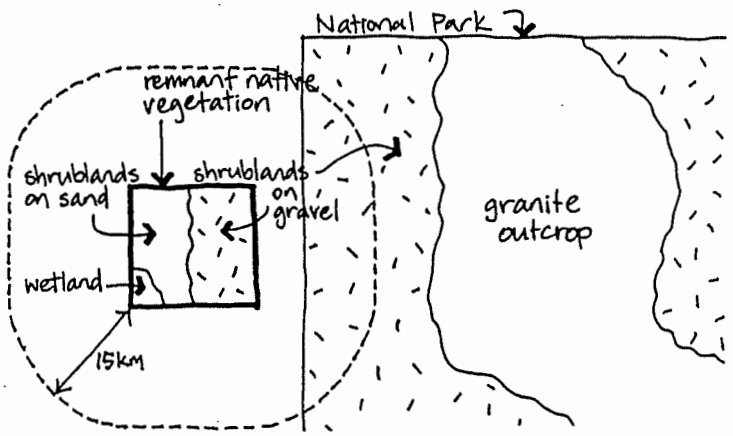
Native vegetation may include areas with high nature conservation values

2. REPRESENTATION (continued)

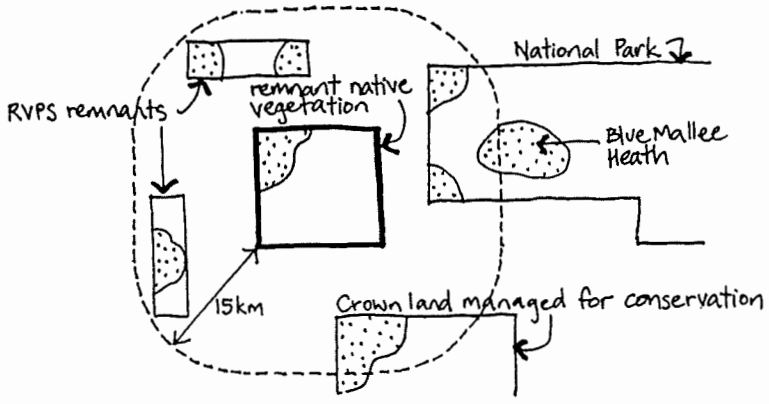
Criteria	Justification for criteria	Study type
2.1.5 Within a 15 kilometre radius of the remnant there are vegetation communities which do not have 20% of their original occurrence represented in NPNCA National Parks or Nature Reserves or in other Crown land or Remnant Vegetation Protection Scheme covenants . Where remnant native vegetation contributes to representation up to 20% of the original occurrence of a plant community it is a high priority for protection.	If reserves in the region are to conserve the flora, especially rare species then stands within the same broad formations and soil types are required at least at intervals less than 15 kilometres. Spacing of reserves will have to be considerably less in species rich areas (Burgman 1988). Replications of habitats is also very important. Hopper (1992). Natural catastrophes, land use change could mean the loss of occurrences. 20% of the original cover of each plant community should be retained. There is no scientific data to suggest that 20% is sufficient but 20 % is suggested as a baseline for the wheatbelt in line with the 20% rule for retention of remnant vegetation within a farm, catchment and Shire. The most securely held reserves are vested in the National Parks and Nature Conservation Authority (NPNCA) and managed by CALM. Other Crown reserves may be being managed sympathetically for nature conservation eg by shires and while less secure are considered in this study. Some privately owned remnants are secured temporarily under 30 year covenants with AgWA under the Remnant Vegetation Protection Scheme. Other private remnant vegetation is also playing a major conservation role but is not considered at this stage as its security is uncertain.	Desk study of Beard vegetation communities, rapid field assessment may be required
2.1.6 Vegetation communities not well represented in IBRA regions are a high priority for protection.	Where the land includes vegetation communities not well represented in the Interim Biographical Representation in Australia (IBRA) region they have a high priority for protection.	Desk study



The whole of the remnant should be retained because it contains woodland which is poorly represented in the IBRA region and the shrublands on gravel and the blue mallee heath are not represented in National Parks, Nature Reserves or on Crown Land within a 15 kilometre radius of the remnant.



That part of the native vegetation containing shrublands on gravel is a lower priority for retention because there is greater than 20% of their original occurrence within 15 kilometres in the nearby National Park. The shrublands on sand and wetlands are a high priority for retention as they are not represented within a 15 kilometre radius of the remnant.



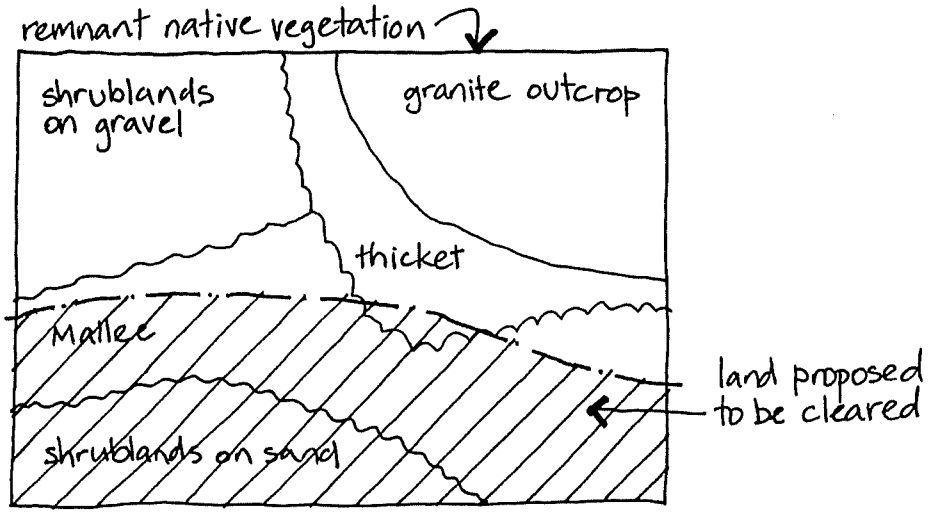
That part of the remnant vegetation containing blue mallee heath is a lower priority for retention because more than 20% of the original occurrence is represented in National Parks, Crown Land and RVPS covenants.

CRITERIA 2·1·5 REPRESENTATION

Examples of representation of plant communities

2. REPRESENTATION (continued)

Criteria	Justification for criteria	Survey type
2.2.1 Rare and priority fauna as listed by CALM requires protection	Remnant vegetation known to contain or likely to contain rare fauna should be a high priority for protection. *This study adopts the gazetted lists of threatened fauna and priority lists as maintained by CALM.*	
2.2.2 Significant habitats for wildlife require protection	Some areas are particularly valuable as habitats for wildlife, for example nest hollows in woodlands and if removed or their habitat values significantly reduced then there would be a high probability of regional population decline of a species. The plant communities present can be significant for wildlife. Many species have adapted to and require a diverse environment to meet their seasonal food requirements. If one plant community is preferentially reduced by clearing, the remaining areas will be of reduced nature conservation value. The aim should be to retain sufficient adjacent areas of each plant community in a remnant to satisfy faunal requirements.	Desk study, rapid assessment may be required



Clearing of Mallee and shrublands on sand would seriously disadvantage fauna dependent on those plant communities for part or all of the year

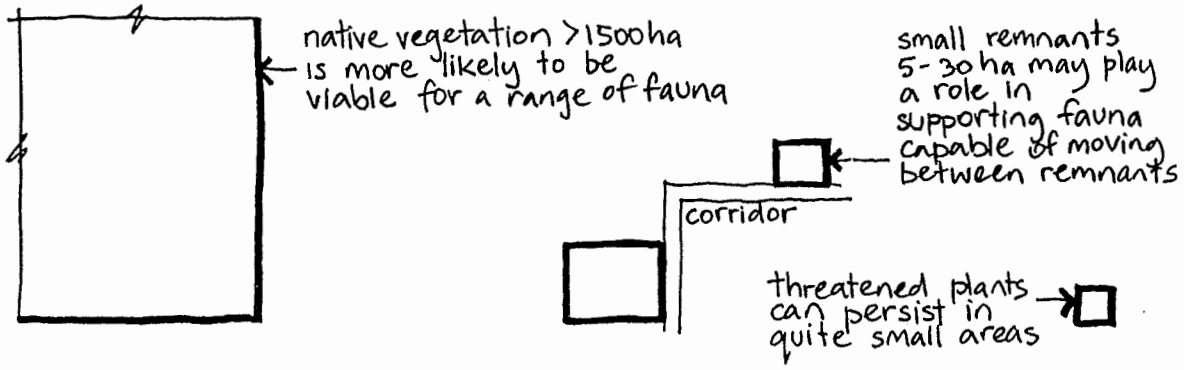
CRITERIA 2·2·2 HABITAT PROTECTION

Many species of wildlife have adapted to and require diverse vegetation communities for their survival

3. VIABILITY - survival of natural values

Viability considers factors which can be identified as having a high likelihood of resulting in serious degradation of the remnant over the next 50 years. Impacts of future human actions have not been considered. Areas which are degraded and considered not viable may be valuable if restorable or provide a seed source for habitat reconstruction. Water table rise can affect viability but have not been considered in this section on the premise that landscape management will be initiated and water table rises arrested.

Criteria	Justification for criteria	Study type
3.1 Maximise area of native vegetation to enhance viability	In this study it has been assumed that larger remnants, >1500 ha, have higher conservation values and are more likely to be viable for a range of fauna than small remnants (Kitchener et al 1980). The majority of privately held remnants in the Wheatbelt are small but may play a valuable role in supporting fauna species capable of movement between remnants, in species movements and sometimes are the only representation of the original vegetation. There appears to be little agreement on the minimum size of remnants for conservation purposes. Wallace (1989) has suggested that 25 ha is one reasonable cut off based on the work of Kitchener et al (1980) on mammals. The Remnant Vegetation Protection Scheme has provided fencing assistance for areas down to 5ha. The study *Conservation of Small Reserves in the Central Wheatbelt* suggested that an intact area of 30 hectares was one criteria for a reserve to be considered for vesting in the NPNCA. Threatened plants can sometimes persist in quite small areas. It is desirable to retain the maximum area of a remnant possible and aim to retain areas greater than 1500 ha with areas of 30 hectares and smaller still being valuable depending on the conservation goal.	Desk study

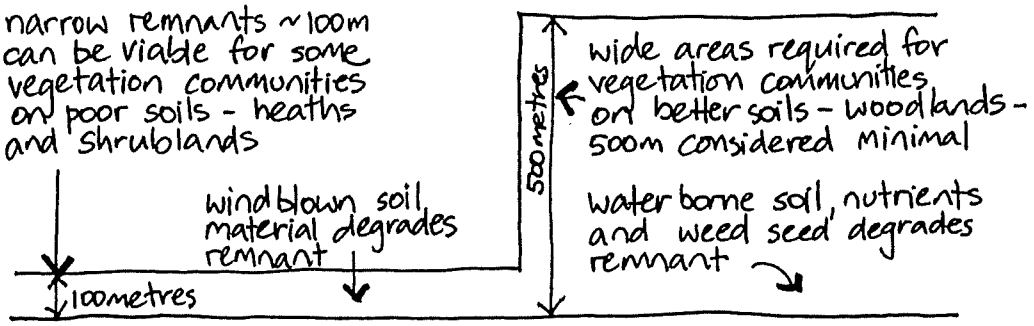


CRITERIA 3·1 AREA

Native vegetation of all sizes can play a role in conserving flora and fauna in the Wheatbelt of Western Australia

3. VIABILITY (continued)

Criteria	Justification for criteria	Study type
3.2 Native vegetation with small edge to area ratios are best for viability	Remnants with small edge to area ratios are likely to be better for nature conservation than remnants with large edge to area ratios and the shape of a remnant is likely to be more important in small and linear remnants as more edge habitat and edge disturbances are created. It is suggested that edge to area ratios not be considered but small narrow isolated remnants with significant areas less than 100 metres in width will constitute mainly edge habitat with low viability. Narrow areas down to 5 metres can be viable on some soils or with a reasonable management regime. Viability of narrow areas such as retained corridors will depend on the ability of the plant communities to resist weed invasion, the position in the landscape and disturbance level. Plant communities on very infertile soils eg shrublands on gravels have a high ability to resist weed invasion compared with woodlands. Plant communities downslope and down wind of farming land are likely to degrade rapidly due to inputs of nutrients and weed seed. It is considered that 100 metres is a minimum width for retained native vegetation on poor soils with a minimum of 500 metres required for more fertile soils such as woodlands. These estimates are from field observations of weed invasion, there being insufficient information to quantitatively compare plant communities for inherent resistance to change. Corridors which are narrower or degraded can be very valuable for many species of wildlife but may require more management inputs to remain viable.	Desk study, rapid field survey to check indications of poor viability

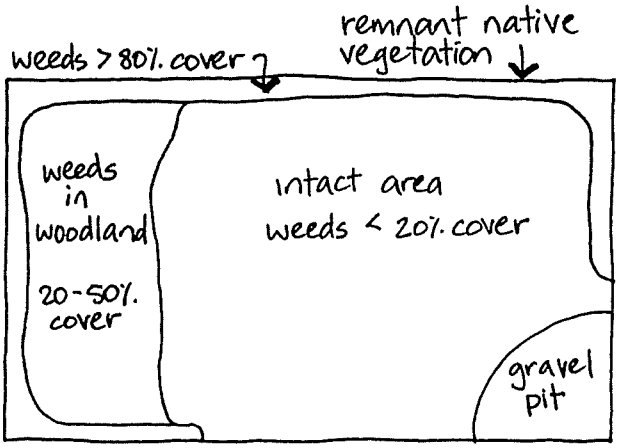


CRITERIA 3·2 REMNANT SHAPE

Wide areas of native vegetation have better viability and better nature conservation values than narrow areas

3. VIABILITY (continued)

Criteria	Justification for Criteria	Study type
3.3 Intact Area - intactness - should be maximised to improve viability	The level of degradation of a remnant has been assumed to affect the value of a remnant for wildlife. Remnants with large intact areas are likely to have better viability than remnants with smaller intact areas. Mapping of weed cover together with mapping of other disturbances such as gravel pits and grazing provides a picture and repeatable measure of reserve condition. Weed cover often reflects grazing history. Weed cover can be mapped in the following classes : 0-20%, 20-50%, 50-80%, 80%+. Areas with less than 20% weed cover, and with no other degrading features, are assumed to be relatively intact. Note that weed cover is less useful in some situations subject to current heavy grazing such as on lateritic soils, seasonally inundated areas where the intactness of the community structure may be a better measure. Remnants with no or very low areas of intact vegetation are assumed to have low viability.	Rapid field survey

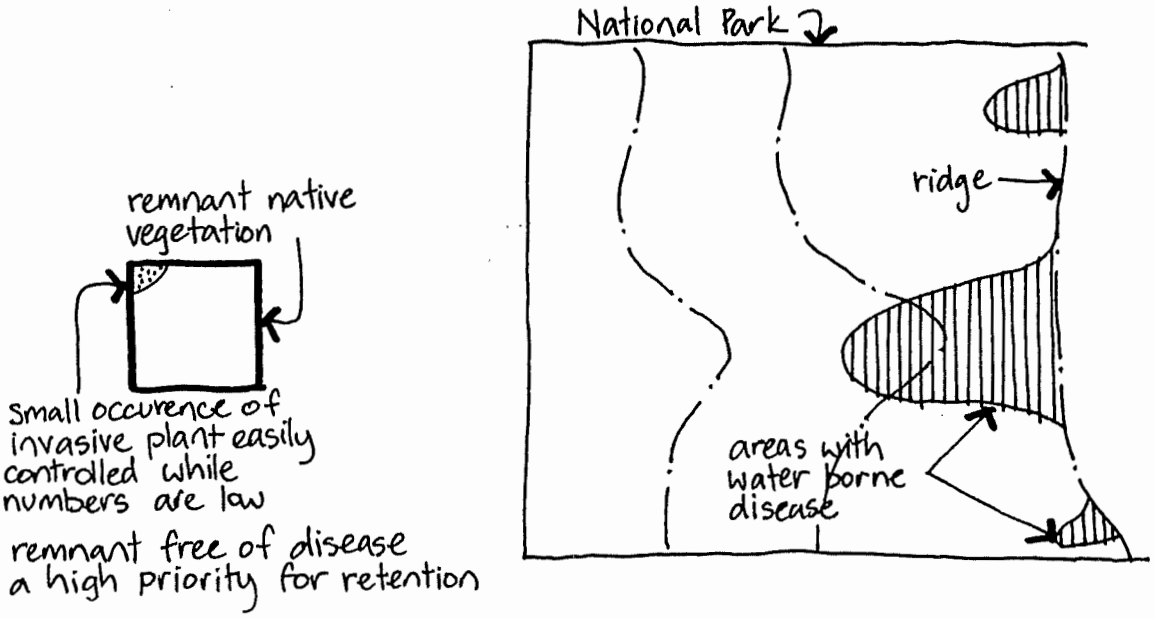


CRITERIA 3·3 INTACT AREA

Intact native vegetation has high conservation values and viability compared to degraded areas but degraded areas can sometimes be rehabilitated and may provide a buffer to intact areas

3. VIABILITY (continued)

Criteria	Justification for criteria	Survey type
3.4 Native vegetation with disease will have reduced viability	Diseases such as Dieback (Phytophthora species) can have a big impact on a vegetation community. In some cases disease will be present or likely to spread further in reserves but is yet to impact on private remnants. In these cases the value of the remnant to retain disease free examples of the original vegetation is increased.	Desk study and rapid field survey
3.5 Invasive plants reduce viability	Presence of invasive plants capable of, or with potential to, cause modification to species richness, species abundance or ecosystem function or to totally and permanently destroy an ecosystem.	Rapid field survey
3.6 Adjacent land uses may impact adversely on viability	Farming in the wheatbelt is the land use most likely to impact on a reserve and in most cases the effects are restricted to edges. Where drains for saline water disposal were constructed into a remnant the effects are severe and in such cases the affected parts of the reserve are considered to have low viability. Sandblown/deposition from adjacent paddocks with soils subject to wind erosion can be a major cause of bushland decline.	Desk study and rapid field survey



Diseases and invasive plants can reduce the viability of native vegetation

PROCEDURES FOR THE ADMINISTRATION AND ASSESSMENT OF CLEARING AND PROTECTION OF NATIVE VEGETATION IN WESTERN AUSTRALIA

REVISED GUIDELINES PREPARED FOR

AGRICULTURE WESTERN AUSTRALIA OFFICERS

April 1997

Supporting Manual 4.3
Memorandum of Understanding for the protection of remnant vegetation on private land in the agricultural region of Western Australia

Preface

Since 1986 controls on the clearing of land in WA have operated under the Soil and Land Conservation Act. Those controls have been revised on a number of occasions, to reflect increasing knowledge, concern and awareness of the causes and extent of land degradation in WA.

In the agricultural areas of southern WA implementation of these controls entered a new phase in 1997, following adoption of the State's Salinity Action Plan, and implementation of a cross agency agreement to establish a single evaluation process. Through this agreement a range of natural resource conservation issues are to be considered in the evaluation of proposals to clear. The Memorandum of Understanding formalising the agreement, which I signed as Commissioner, also sets out the criteria against which clearing proposals are to be evaluated, and other policies I have adopted as Commissioner.

Translation of these important policy directions into simple and practical guidelines that can be used by Land Conservation Officers is a process of continuous improvement.

Hence these guidelines are guidelines only, and should be adapted in the light of the recent policy decisions by myself and the Minister. I ask Land Conservation Officers using this manual to bear in mind that:

- incremental increases in salinity attributable to land use change following clearing are no longer acceptable.

- a number of areas have been clearly identified where the impacts of past clearing are already so severe that further clearing carries an unacceptable risk of increased degradation. These areas include shires where less than 20% of the original vegetation remains within the main agricultural area. In these areas I am of the opinion that land degradation will result from any clearing. Hence I expect any Notice of Intention for these areas to be automatically referred to the Deputy Commissioner for objection. Landholders who consider their proposal will not cause land degradation or threaten nature conservation values need to provide me with a detailed case outlining the factors involved and a management program which addresses these. It is likely that the proposal will also be assessed by the Environmental Protection Authority.

- it is expected that further areas will be included in the above category, following submissions from local government authorities, Land Conservation District Committees, catchment and conservation groups and government agencies, or presentation of hydrological or other information by Agriculture Western Australia.

- generally, I will object where further clearing on a property will reduce the area of remnant vegetation, or equivalent deep rooted vegetation, to below 20% of the total contiguous property area. Again, exceptional cases will only be considered if the landholder can demonstrate that clearing will not cause land degradation or threaten nature conservation values. This 20% per property ruling is to be considered an absolute minimum, and is not to be used as the level down to which a landholder can clear regardless of other issues.

- we are now operating, on behalf of landholders and the whole of government, the "front end" of a single evaluation process which covers a range of issues. It is important to ensure that cross agency cooperation is maintained at all stages of the assessment process.

I would also like to express my appreciation and support for the work undertaken by Land Conservation Officers and administrative staff. While the need for an effective regulatory system to protect land and water resources is well recognised, it can be difficult work. One important goal in these changes is to provide greater clarity and certainty for both Agency staff and landholders.

I will be working closely with the Industry Resource Protection Program to ensure that the essential link between land protection and management is restored and strengthened. I will also be asking regional and catchment groups to ensure that the need to adequately protect remnant vegetation is considered in the development of regional landcare and catchment strategies.

Kevin Goss
Commissioner for Soil and Land Conservation

April 10, 1997

CONTENTS

1. LAND CLEARING CONTROLS IN WESTERN AUSTRALIA

Land Clearing controls in Western Australia were introduced in 1986 under the Soil and Land Conservation Act, to ensure that land degradation did not result from land clearing.

In the Bruce Rock Land Conservation District, clearing of remnant native vegetation was prohibited by regulation gazetted in 3 May 1991.

The Peel Harvey catchment is covered by Environmental Conditions set by the Minister for the Environment which placed a moratorium on clearing. NOIs may be received for land clearing proposals in this area, however, the Commissioner will refer these clearing proposals to the Department of Environmental Protection (DEP) for a final decision.

In addition, the DEP advertised in 1995 that certain areas between Gingin and Dunsborough contain threatened or poorly reserved plant communities. All development proposals affecting this land should be referred to the EPA for a final decision (these areas are identified on the WALIS system).

Agriculture Western Australia, Water and Rivers Commission, the Departments of Conservation and Land Management and Environmental Protection and the Environmental Protection Authority, have agreed to implement a single process to evaluate the impact of clearing on land degradation, nature conservation and landscape values.

The procedures for this evaluation process are outlined in these guidelines.

In March 1995, Cabinet directed that "existing controls on clearing under the Soil and Land Conservation Act, and the Country Areas Water Supply Act be augmented by a system to ensure that other natural resource conservation issues are considered before any further clearing occurs on private land."
In Shires with greater than 20% total remnants, the Commissioner of Soil and Land Conservation will decide on the need to inform the Environmental Protection Authority (EPA) of any clearing proposal in accordance with an agreed Memorandum of Understanding.

1.1 Extract of Regulation

Notice of Clearing

4. (1) Subject to subregulation (3), the owner or occupier of any land in the State which it is proposed to clear shall, where that clearing will result in a change in the use of that land, at least 90 days before the commencement of the clearing, give notice to the Commissioner of his intention in that behalf.
Penalty: $2,000.

(2) The notice referred to in subregulations (1) and (4) shall be in writing in the manner set forth in Form 1 in Schedule 2 and shall be accompanied by a map with a north point, identifying the land to be cleared, detailing the location numbers of that land and any adjacent land, and showing any public roads adjacent to that land.

(3) Subregulation (1) does not apply to the proposed clearing of land -

(a) which has an area of one hectare or less; or

(b) which is "controlled land" within the meaning of that term set forth in section 12AA of the Country Areas Water Supply Act 1947 and which is specified in Schedule 3.

(4) An owner or occupier who gives notice to the Commissioner in accordance with subregulation (1), but fails to commence clearing within the period of 2 years from the date of the notice, is required, at least 90 days before he or she proposes to clear the land, to give notice in accordance with subregulation (2) to the Commissioner for reassessment.

(5) Subregulation (4) does not apply to a notice given to the Commissioner before 29 November 1991.

1.2. Definitions

"To clear" in relation to any land, means to cut down, destroy or otherwise damage trees, shrubs, grass or other plants on that land which brings about a changae in land use but does not include cutting of trees for firewood, posts or timber for reasonable use on the property. These procedures and guidelines apply to native vegetation defined as remaining vegetation containing locally indigenous species and includes regrowth on areas cleared for more than two years.

An assessment is made as to whether the impact of clearing will be 'detrimental to the present or future use of land.

1.3 Facilities Under the Soil and Land Conservation Act

Agreement to Reserve

An Agreement to Reserve (ATR) is the formal document stating that the land owner or occupier agrees with the Commissioner's that an area not be cleared and that he/she recognises the value of sound land management practices. Fencing and stock exclusion is required if adjacent areas are to be grazed, and the ATR is registered as a memorial on the Certificate of Title.

A time period may be specified for the Agreement to Reserve or it may be indefinite. It can be discharged by the Commissioner where it is no longer considered necessary, or following application by the land owner/occupier, provided suitable reasons exist.

Soil Conservation Notice

A Soil Conservation Notice (SCN) may be served on a person by the Commissioner where he is of the opinion that land degradation may result from clearing or intended clearing.

A SCN may be registered as a memorial on the Certificate of Title and is appealable to the Minister for Primary Industry within 30 days of service of the Notice.

1.4 Summary of the Notification and Assessment Process

Landowners or occupiers who intend to clear more than one hectare for a change of land use must notify the Commissioner of Soil and Land Conservation at least 90 days before commencement of clearing.

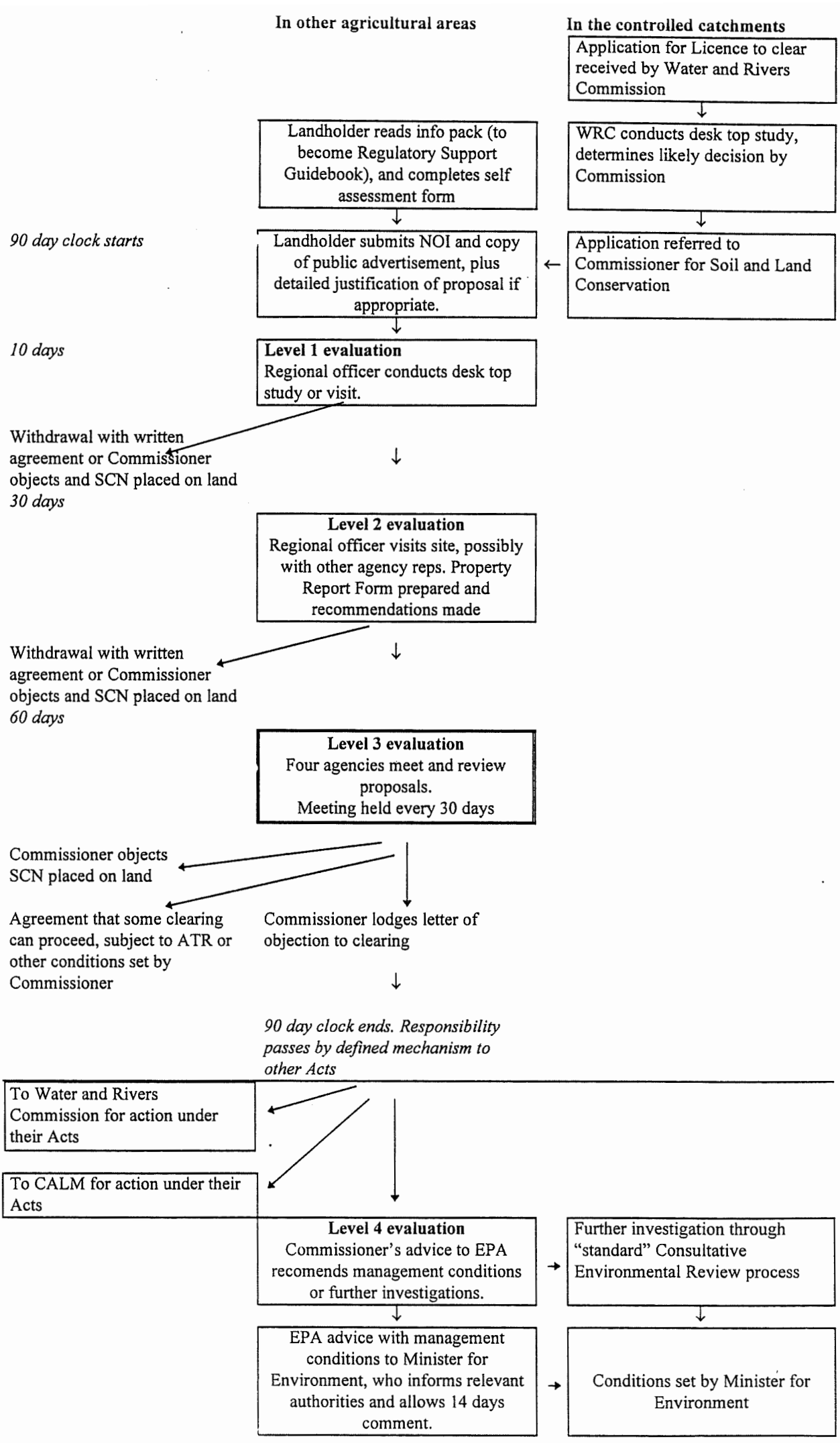
Proposals will be assessed according to these guidelines to enable the Commissioner to determine whether land degradation is likely to result, and to collate information on the proposal in cases where formal assessment may be required by the EPA.

A landholder may withdraw a NOI on the written undertaking that the area notified fwill not be cleared.

Otherwise, any land which is considered to be a land degradation hazard if cleared, will be protected by either the landholder entering into an Agreement to Reserve (ATR) or the Commissioner issuing a Soil Conservation Notice (SCN).

Clearing proposals will be assessed for possible impacts on nature conservation values. The Commissioner may advise the Environomental Protection Authority (EPA) of those proposals which may require further assessment under the EPA Act.

See Figure 1.


In other agricultural areas
In the controlled catchments
Application for Licence to clear received by Water and Rivers Commission
Landholder reads info pack (to become Regulatory Support Guidebook), and completes self assessment form
WRC conducts desk top study, determines likely decision by Commission
90 day clock starts
Landholder submits NOI and copy of public advertisement, plus detailed justification of proposal if appropriate.
Application referred to Commissioner for Soil and Land Conservation
10 days
Level 1 evaluation
Regional officer conducts desk top study or visit.
Withdrawal with written agreement or Commissioner objects and SCN placed on land
30 days
Level 2 evaluation
Regional officer visits site, possibly with other agency reps. Property Report Form prepared and recommendations made
Withdrawal with written agreement or Commissioner objects and SCN placed on land
60 days
Level 3 evaluation
Four agencies meet and review proposals.
Meeting held every 30 days
Commissioner objects SCN placed on land
Agreement that some clearing can proceed, subject to ATR or other conditions set by Commissioner
Commissioner lodges letter of objection to clearing
90 day clock ends. Responsibility passes by defined mechanism to other Acts
To Water and Rivers Commission for action under their Acts
To CALM for action under their Acts
Level 4 evaluation
Commissioner's advice to EPA recomends management conditions or further investigations.
Further investigation through "standard" Consultative Environmental Review process
EPA advice with management conditions to Minister for Environment, who informs relevant authorities and allows 14 days comment.
Conditions set by Minister for Environment

2. THE PROPONENT'S ROLE

Prior to lodging a Notice of Intent (NOI) to clear land, the proponent should carefully read the available information and complete a self assessment.

The Commissioner will Generally Object to Land Clearing, where:

- The contiguous landholding has less than 20 per cent remnant vegetation or planted deep-rooted perennial vegetation;
- The Shire is listed as having less than 20 per cent remnant vegetation within its main agricultural area;
- The proponent provides insufficient information to enable the Commissioner to reach a decision;
- It is known that the proposed land clearing will reduce the area of remnant vegetation in a sub catchment to a level below that specified under these guidelines.

2.1 Who May Notify?

Any landholder or occupier may notify their intention to clear land.

Assessments beyond Level 1 (see Figure 1) cannot be given to third parties including land agents and prospective buyers.

Government agencies and instrumentalities are generally required to notify their intention to clear land.

NOIs for clearing of mine sites are processed by the State Mining Engineer.

Operators of gravel pits, quarries and sand pits are required to notify the Commissioner.

Water Catchment Areas:

Clearing in **Country Areas Water Supply Act (1947)** catchments must be notified to the Water and Rivers Commission. (WRC)

These catchments are:

(a) Wellington Dam catchment area.

(b) Mundaring Weir catchment area.

(c) The Denmark River catchment area.

(d) The Kent River water reserve.

(e) The Warren River water reserve.

(f) The Harris River Dam catchment area.

The proponent must apply to the WRC. Applications to clear areas greater than 1ha will be referred to Agriculture Western Australia for a joint assessment in accordance with these guidelines. Areas to be protected from clearing under the Soil and Land Conservation Act will be identified before the WRC impose restrictions under the Country Areas Water Supply Act.

2.2 When to Notify

Any landholder or occupier who intends to clear more than one hectare of vegetation for a change of land use must notify the Commissioner at least 90 days prior to commencement of clearing.

Where an owner or occupier has previously had land clearing proposals assessed, but failed to commence clearing within two years of the date of the Notice, they must resubmit NOI.

NOIs are not transferrable to successive land owners.

Where **remnant vegetation is grazed,** thinning of that vegetation to enable fertiliser or pasture seed to be broadcast or otherwise to enhance pasture growth (i.e. parkland clearing) is considered a change of land use and must be notified.

Notification is required for **incremental clearing** once the initial one hectare on any individual holding, or a number of holdings under common ownership, has been cleared.

2.3 Notification is not Required

NOIs are not required for those areas notified before 29 November 1991.

Notification is also not required where clearing does not result in a change in land use, provided that clearing will not result in land degradation. Examples of which are:

- When CALM clear fells a forest and allows it to regrow as natural forest;
- Clearing of fence lines and firebreaks, which are an accepted land use practice and are in accordance with Local Government requirements, although such clearing should not in itself constitute a land degradation hazard;
- Clearing of isolated paddock trees. However in WRC controlled catchments, an application to clear isolated paddock trees must be made to WRC.
- Non-rural land.

Notification of clearing proposals for introduced deep-rooted perennial species (e.g. Bluegums, pine, tagasaste) is generally not required, unless protected by an ATR or SCN.

2.4 How to Notify

Land clearing proposals must be notified to the Commissioner on the forms provided. (Form 1 of Schedule 2 of the Soil and Land Conservation Regulations 1992).

These forms may be lodged at any office of Agriculture Western Australia, where they will be date-stamped and signed by the Receiving Officer.

Supporting Information

- **The Notice of Intent to clear land (NOI) must be accompanied by a cadastrally correct map of the proposal or, preferably an aerial photograph at 1:10,000 scale.**
- **This plan should accurately describe the extent of the proposed clearing; soil types; rocky areas; remnant vegetation; wetlands; watercourses; proposed windbreaks; contour lines; location numbers; any adjacent public roads; and any other information relevant to the assessment guidelines described below.**
- **A copy of the advertisement of the Intent to Clear land published in the main local newspaper and the Saturday morning edition of the "West Australian" newspaper;**
- **When landholders are proposing to clear land where either their property has <20% remnant or equivalent deep-rooted perennials or their Shire has less than 20 per cent total cover by remnants, they will be required to demonstrate that land degradation and native conservation values will not be threatened.**

2.5 Withdrawal of a Notice of Intent to Clear

A proponent may withdraw a NOI without a memorial being placed on the Certificate of Title at Level 1, Level 2 and Level 3 of the assessment process shown at Figure 1.

A proponent may withdraw a NOI by writing to the Commissioner and confirming that he/she no longer intends to clear the areas previously notified.

The EPA may impose conditions if the Notice is withdrawn at Level 4.

3.0 ADMINISTRATION AND ASSESSMENT

The Commissioner of Soil and Land Conservation is required to assess land clearing proposals for land degradation hazards.

Additionally, the Government requires that where land clearing is proposed in Shires with greater than 20 per cent total remnants, the Commissioner will decide on the need to inform the EPA to ensure that other natural resource conservation issues are considered.

A single evaluation process has been developed to streamline the statutory assessment responsibilities of the Commissioner, EPA and other agencies.

3.1 Lodgement of the NOI

The assessment process is initiated upon receipt of a NOI along with the relevant supporting information.

The NOI may be lodged at any office of Agriculture Western Australia. Officers authorised by the Commissioner will date stamp sign the NOI, prior to a copy being faxed to the Administrator, Production Resource Protection Services. The Administator will register the NOI, maintain a database and manage the process.

The NOI form is to be referred to the Land Conservation Officer (LCO), who will enter details into the local register, check for completeness and compliance with these guidelines and Government policy.

3.2 Eligibility

All NOIs will be subject to a "desk top" Level 1 assessment (see Figure 1) to establish the eligibility of the proposal to be assessed at higher levels.

Land clearing proposals on properties with more than 20% remnant or equivalent deep-rooted perennial vegetation will be considered provided that more than 20% of the original vegetation remains in the main agriculture area of the relevant Shire *(Refer Appendix 1).*

The LCO will inform the Commissioner (Deputy) in writing, within 10 days of receipt of the NOI of the status of the clearing proposal, i.e.

- non-notifiable land clearing
- ineligible to proceed beyond Level 1
- eligible to proceed beyond Level 1.

Consistent with the existing delegation of powers by the Commissioner, letters of objection may be signed by the Deputy Commissioner.

3.3 Administrator

The Administrator will manage the administrative process and will ensure that proponents are informed of the progress of the clearing proposal through the assessment process.

This includes acknowledgement of receipt of the NOI, and the outcome of the assessments at Levels 1-3 as appropriate.

3.4 Property Inspection and Report

Land clearing proposals eligible for assessment at Level 2 (Figure 1) will be inspected to assess the potential for land degradation and serious impacts on nature conservation to occur.

The assessment criteria in the following sections will be applied to identify areas where natural vegetation should be retained. Agreements to Reserve are not to be negotiated at this stage.

The inspection will usually be conducted by an Agriculture Western Australia officer. Joint inspections with LCDC or representatives from other agencies may be arranged to ensure that the broad environmental issues are considered.

Property Reports (Appendix 2) are to be prepared and forwarded to the Administrator within 30 days of the receipt of the NOI. Such reports are prepared for the Commissioner and may be made available to land clearing proponents on request.

3.5 Other Natural Resource Conservation Issues

A working group comprising representatives of Water and Rivers Commission, Department of Conservation and Land Management, Department of Environmental Protection and Agriculture Western Australia will provide advice to the Commissioner on the conservation risks associated with each land clearing proposal that has progresssed through Levels 1 and 2 assessments (Level 3 Assessment Figure 1).

The Administrator will forward assessment reports to the members of an interagency working group, at least 5 days prior to scheduled meetings.

Where issues beyond the power of the Commissioner are identified, the matter will be referred to the appropriate agency for action.

Following assessment at Level 3, the Commissioner may refer a clearing proposal to the EPA. The referral will include agreed management conditions in draft form for the EPA's consideration.

Where significant impacts on nature conservation or water resources are likely and available information is lacking, the Commissioner may recommend that the proposal be formally assessed by the EPA, and this will generally be at the Consultative Environmental Review (CER) level.

4.0 ASSESSMENT CRITERIA

In accordance with the agreed evaluation process, the following criteria to assess land clearing proposals at Levels 1,2 and 3 (see Figure 1), will apply.

Item	Principle - Native Vegetation Should be Retained if:
1.1 Water	The clearing is likely to cause deterioration in surface and groundwater catchments which result in increases in salinity and eutrophication.
1.2 Soil	The clearing is likely to contribute to soil erosion, waterlogging or flooding.
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.
1.4 Aesthetics and Cultural	The land provides high landscape values; has special physiographic features; aboriginal sites or heritage value.

The likelihood of the proposed clearing causing or exacerbating site salinity will be assessed after ensuring that the prescribed minimum levels of vegetation are retained within the subcatchments affected.

These are summarised in the table below:

Mean Annual RF (mm)	Native Vegetation %
>1100	Case by case assessment.
700 - 1100	30
500 - 700	25
<500	20

Detailed guidelines for assessing the potential for land degradation (salinity, eutrophication and soil salinity) to result from land clearing proposals are shown at Appendix 4.

The **capability** of land notified for clearing will be evaluated for its **intended** use. The Commissioner will generally limit the clearing of land with low agricultural potential.

Detailed land capability criteria for soil erosion and waterlogging are shown in Appendix 3.

Representation

Item	Principle - native vegetation should be retained if:
Flora	It contains or is likely to contain, threatened flora or flora of special interest.
Plant Communities	It contains or is likely to contain, threatened plant communities.
Diversity	It contains areas of very high species richness.
Wetlands	It contains wetlands of significance.
Local Representation	Within a 15 kilometre radius of the remnant, there is less than 20% of the original cover of any plant community on the land represented by: (i) viable occurrences in NPNCA National Parks or Nature Reserves. (ii) viable occurrences in other Crown Land or Remnant Vegetation Protection Scheme covenants.
Regional Representation	It includes vegetation communities not well conserved in the region compared with the original cover as represented in the Interim Biographical Representation in Australia (IBRA).
Wildlife	It contains or is likely to contain, specially protected fauna.
Habitats	It has significance as habitat for wildlife or if a loss of diversity by clearing part of the land will adversely impact on fauna dependent on a mosaic of vegetation types.

Viability

Item	Principle - Survival Of Natural Values Over the Next 50 Years
Area	Large areas have higher conservation values, the maximum possible area of a remnant should be retained. Groups of small remnants can support fauna able to move between remnants.
Shape	Very narrow areas of retained vegetation are less likely to be viable and of reduced value as corridors.
Intactness	Remnants with little or no intact understorey vegetation are unlikely to be viable.
Diseases and Pests	The vegetation should be largely free of major diseases and pests such as Dieback. Disease free vegetation is more important for retention if similar vegetation communities in nearby reserves are diseased.
Invasive Plants	Presence of invasive plants capable of, or with potential to, disrupt ecosystem processes.
Adjacent Uses	Adjacent land uses impacting on the viability of the land must be considered.

5.0 LAND CLEARING WITHOUT NOTICE

Land clearing without notice or breach of a SCN or ATR should be immediately notified to the Commissioner.

The response procedure to be followed by field and administrative staff is detailed at Appendix 6.

6.0 WOODCHIP LICENCES (Bunnings Limited)

The Minister for the Environment has delegated to the Commissioner (16 January 1989) the power to authorise WA Chip and Pulp Company to use wood for woodchipping or obtain woodchips derived from clearing of remnant native vegetation and from tree plantations on private property provided:

(a) the land was cleared for agriculture, tree plantations or other change in land use and the farmer has agreed to protect the required minium area for land degradation reasons;

(b) in salt risk areas the native forest was degraded beyond recovery and the clearing was replaced by an equal area of plantation forest protected with a memorial on the land title; or

(c) the taking of timber was part of a forest management plan endorsed by CALM to regenerate the area under native vegetation.

6.1 Clearing of Isolated Paddock Trees and Small Degraded Copses for Woodchips

Within WRC Catchments

Farmer applies to WRC for an assessment by WRC who provide documentation to Agriculture WA to prepare an Agreement to Reserve and to issue the woodchip licence.

Outside WRC Catchments

Farmer submits a statutory declaration detailing the number of trees to be chipped and location of the trees. On receipt of the statutory declaration the Commissioner issues the woodchip licence.

6.2 Thinning Remnant Vegetation for Woodchips

Within WRC Catchments

Farmer applies to WRC, together with a forest management plan, endorsed by CALM, for an assessment by WRC who provide documentation to Agriculture WA to issue the woodchip licence.

Outside WRC Controlled Catchments

Farmer submits a forest management plan endorsed by "licenced forester" to Agriculture WA. Assessment may not be required except if there is reason to believe that thinning will encourage intrusion of livestock whereby an ATR may result. A woodchip licence is issued.

6.3 Clearing Remnant Vegetation of Greater Than one Hectare for Woodchips

Within WRC Catchments

Farmer applies to WRC who arranges a joint assessment with Agriculture Western Australia, preferably within 20 days of receipt of the application. Assessment is based firstly on Agriculture Western Australia guidelines and the areas for protection under these guidelines are established. Assessment is then based on WRC guidelines, if the required minimum remnant vegetation area under the WRC guidelines has not been protected.

Following assessment at Level 3, discussions may be held with the proponent and may include trade offs for clearing degraded remnants, or non-viable pockets (less than two hectares) in exchange for protection of equivalent areas elsewhere. In salt affected areas the required minimum area of retained native vegetation need not be enforced. Agreements to Reserve are completed with the farmer and details included on Agriculture Western Australia's NOI form. Digitised information is provided to the Commissioner who will prepare the Agreement to Reserve and issue the woodchip licence.

Outside WRC Controlled Catchments

Farmer submits an NOI to Agriculture Western Australia. Assessment follows these guidelines and procedures.

Following assessment at Level 3, the Commissioner may require that specified areas are protected (20-30% except in the over 1100 mm rainfall zone where the area protected is 20%). Trade offs for clearing degraded remnants in exchange for protection of areas elsewhere, may be negotiated by the Commissioner.

Where significant conservation issues may be involved, the Commissioner may refer the proposal to the EPA.

6.4 Bunnings Treefarms Protocol

A separate procedure exists (see Appendix 5) for clearing of:

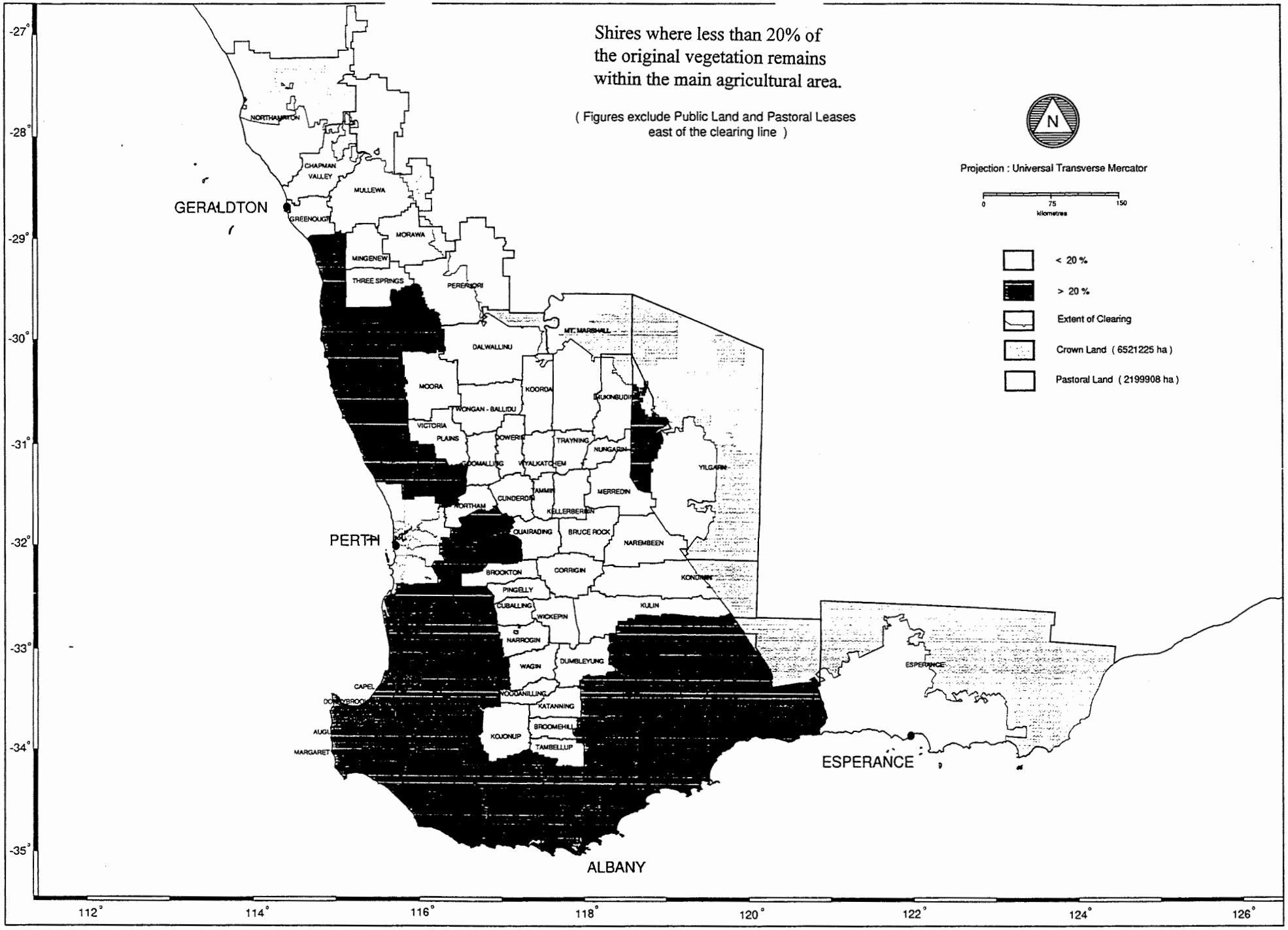
(a) isolated paddock trees;

(b) copses of degraded trees with grass underneath of less than 1 hectare and where the canopy cover is less than 100 per cent.

This protocol applies to land which Bunnings Treefarms either own, is leasing or is negotiating to lease for the development of E. globulus plantations. Similar protocols may be negotiated with other companies if these companies show an interest.

APPENDIX 1

SHIRES WITH LESS THAN 20% ORIGINAL VEGETATION REMAINING IN THE AREAS ALIENATED FOR AGRICULTURE


Shires where less than 20% of the original vegetation remains within the main agricultural area.
(Figures exclude Public Land and Pastoral Leases east of the clearing line)
N
Projection : Universal Transverse Mercator
0
75
150
kilometres
< 20 %
> 20 %
Extent of Clearing
Crown Land (6521225 ha)
Pastoral Land (2199908 ha)
GERALDTON
PERTH
ALBANY
ESPERANCE
NORTHAMPTON
CHAPMAN VALLEY
MULLEWA
GREENOUGH
MORAWA
MINGENEW
THREE SPRINGS
PERENJORI
MT. MARSHALL
DALWALLINU
MOORA
KOORDA
WONGAN - BALLIDU
VICTORIA PLAINS
DOWERIN
TRAYNING
NUNGARIN
YILGARN
GOOMALLING
YEALKATCHEM
CUNDERDIN
TAMMIN
MERREDIN
NORTHAM
KELLERBERRIN
QUAIRADING
BRUCE ROCK
NAREMBEEN
BROOKTON
CORRIGIN
KONDININ
PINGELLY
CUBALLING
KULIN
WICKEPIN
NARROGIN
WAGIN
DUMBLEYUNG
ESPERANCE
CAPEL
DONNYBROOK
AUGUSTA
MARGARET RIVER
WOODANILLING
KATANNING
BROOMEHILL
KOJONUP
TAMBELLUP
-27°
-28°
-29°
-30°
-31°
-32°
-33°
-34°
-35°
112°
114°
116°
118°
120°
122°
124°
126°

APPENDIX 2

PROPERTY INSPECTION REPORT FORM

COMMISSIONER OF SOIL & LAND CONSERVATION
AGRICULTURE WESTERN AUSTRALIA
SOUTH PERTH WA 6151

SOIL AND LAND CONSERVATION ACT: REGULATION 4

NOI TO CLEAR LAND LOCATION

NOTIFIED BY:

FILE:

SECTION A: BACKGROUND

1. **Introduction and Summary**

2. **Notification Dates**

3. **Property Inspection**

4. Property Location

4.1 Geographic Position

Nearest Town:

Nearest Road:

Map Reference: Lat S and Long E

AMG Reference: Zone , E and N

5. Local Government Area

6. Contiguous Locations

7. Clearing Proposal

8. Property Description

8.1 Landform

8.2 Position in Landscape

8.3 Geology

8.4 Soils

8.5 Vegetation

SECTION B: ASSESSMENT

9. On site Degradation Hazards

10. Off site Degradation Hazards

11. Clearing Effect on Degradation Hazards

12. Application of Guidelines

12.1 Land Degradation Hazards

12.2 Subcatchment

13. Suitability of Land for Proposed Use

14. Evaluation of Native Vegetation

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.	
1.2 Soil	the clearance of vegetation is likely to contribute to soil erosion, waterlogging or flooding.	
1.3 Corridors and Buffers	the land provides a corridor or steeping stone between areas of conservation land or the land provides a buffer or is an inlier to areas reserved for conservation.	

1.4 Aesthetics and Cultural	the land provides high landscape values, has special physiographic features, aboriginal sites or heritage value.	

2.	**Representation**	
Item	**Principle - native vegetation should be retained if:**	**Yes/No/Partly**
2.1.1 Flora	it contains or is likely to contain threatened flora or flora of special interest.	
2.1.2 Plant communities	it contains or is likely to contain threatened plant communities.	
2.1.3 Diversity	it contains areas of very high species richness.	
2.1.4 Wetlands	it contains wetlands of significance.	
2.1.5 Local representation	within a 15 kilometre radius of the remnant there is less than 20% of the original cover of any plant community on the land represented by: (i) viable occurrences in NPNCA National Parks or Nature Reserves. (ii) Viable occurrences in the Crown Land or Remnant Vegetation Protection Scheme Covenants.	
2.1.6 Regional representation	it includes vegetation communities not well conserved in the region compared with the original cover as represented in the Interim Biographical Representation in Australia (IBRA).	
2.2.1 Wildlife	it contains or is likely to contain rare fauna.	
2.2.2 Habitats	it has significance as habitat for wildlife or if a loss of diversity by clearing part of the land will adversely impact on fauna dependant on a mosaic of vegetation types.	

3.	**Viability**	

Item	Principle - survival of natural values over the next 50 years	Yes/No/Partly
3.1 Area	Large areas have higher conservation values, the maximum possible area of a remnant should be retained. Groups of small remnant can support fauna able to move between remnants and threatened species.	
3.2 Shape	Very narrow areas of retained vegetation are less likely to be viable and of reduced value as corridors.	
3.3 Intactness	Remnants with little or no intact vegetation are unlikely to be viable.	
3.4 Diseases and Pests	The vegetation should be free of major diseases and pests such as Dieback. Disease free vegetation is more important for retention if similar vegetation communities in nearby reserves are diseased.	
3.5 Invasive plants	Presence of invasive plants capable of, or with potential to, disrupt ecosystem processes.	
3.6 Adjacent uses	Adjacent land uses impacting on the viability of the land must be considered.	

SECTION C: CONCLUSION

15. Vegetation to be Retained

16. Discussion with Landholder

17. Recommendation

18. Justification

19. Notes

20. References

(CLLEVEL2.DOT: LAND CLEARING LEVEL 2 ASSESSMENT: M G KEEN: 1996)

APPENDIX 3

LAND CAPABILITY CRITERIA

Clearing guidelines for defined degradation hazards

Water erosion						
Agricultural region	Soil surface texture	Land capability class				
		I	II	III	IV	V
		%	%	%	%	%
South West	Sand	0–2	3–4	5–8	9–15	> 15
	Sandy Loam and Loams	0–2	3–5	6–8	9–20	> 20
	Clay Loams & heavier	0–1	2	3–8	9–25	> 25
Northern	Sand	0–2	3–4	5–8	9–15	> 15
	Sandy Loams	0–2	3–5	6–8	9–15	> 15
	Clay Loams and heavier	0–1	2	3–8	9	> 9
South Coast	Sand	0–2	3–4	5–8	9	> 9
	Sandy Loam and Loams	0–2	3–5	6–8	9–15	> 15
	Clay Loams and heavier	0–1	2	3–8	9	> 12
Great Southern	Sand	0–2	3–4	5–8	9	> 9
	Sandy Loam and Loams	0–1	2	3–8	9–15	> 15
	Clay Loams and heavier	0–1	2	3–8	9	> 9
Central	Sand	0–2	3–4	5–8	9	> 9
	Sandy Loam and Loams	0–1	2	3–8	9	> 15
	Clay Loams and heavier	0–1	2	3–8	9	> 9

An example of how to interpret this table is: sandy loams in the South Coast region with slope of 10% are thus defined as Land Class IV where clearing must be accompanied with extensive conservation measures. Class IV and V lands should generally not be cleared.

Land capability classes

Capability class	General description
I	Very high capability for the proposed activity or use. Very few physical limitations present which are easily overcome. Risk of land degradation is negligible.
II	High capability. Some physical limitations affecting either productive land use or risk of land degradation. Limitations overcome by careful planning.
III	Fair capability. Moderate physical limitations significantly affecting productive land use or risk of land degradation. Careful planning and conservation measures required.
IV	Low capability. High degree of physical limitations not easily overcome by standard development techniques and/or resulting in a high risk of land degradation. Extensive conservation requirements.
V	Very low capability. Severity of physical limitations is such that its use is usually prohibitive in terms of either development costs or the associated risk of land degradation.

Wind erosion (Technical detail)						
Agricultural region	Soil surface texture	Land capability class				
		I	II	III	IV	V
South West	Surface texture	CL	L	SL	MS/CS	FS
	Structure (peds)	> 5 mm	2–5 mm	1–2 mm	< 1 mm	single grain
	Drainage	> 1 week	4–7 days	3–4 days	1–2 days	< 5 hrs
	Water holding capacity	> 20%	10–20%	8–10%	5–7%	< 5%
	Clay depth	.25–.5 m	.5–1.0 m	1.0–1.5 m	1.5–2.0 m	> 2.0 m
	Fetch	> 800 m	400–800 m	150–400 m	100–150 m	< 100 m
North East	Surface texture	C	L	SL	S	CS
	Structure	hardset	hardset/firm	firm	single grain	single grain
	Water repellency	No	No	No	Yes	Yes
	Nutrient retention	> 20%	10–20%	7%	7%	5%
				West Midlands		
	Depth/colour change			0–0.5 m 10yr 7/8 (or darker)	0.5–1.0 m 10yr 7–8/6 (or whiter)	> 1.0 m 10yr 8/6
South Coast	Soil and site characteristics which determine the wind erosion hazard for cereal/livestock farming					
	Surface texture	CL	L	SL	MS/SC	
	Structure (peds)	> 5 mm	2–5 mm	1–2 mm	< 1 mm	single grain
	Drainage	> 1 week	4–7 days	3–4 days	1–2 days	< 5 hrs
	Water holding capacity	> 20%	10–20%	8–10%	5–7%	< 5%
	Clay depth	.25–.5 m	.5–1.0 m	1.0–1.5 m	1.5–2.0 m	> 2.0 m
	Fetch	> 800 m	400–800 m	150–400 m	100–150 m	< 100 m
Great Southern	Surface texture	CL	L	SL	Ms/CS	FS
	Structure (peds)	> 5 mm	2–5 mm	1–2 mm	< 1 mm	single grain
	Drainage	> 1 week	4–7 days	3–4 days	1–2 days	< 5 hrs
	Water holding capacity	> 20%	10–20%	8–10%	5–7%	< 5%
	Clay depth	.25–.5 m	.5–1.0 m	1.0–1.5 m	1.5–2.0 m	> 2.0 m
	Fetch	>.800 m	400–800 m	150–400 m	100–150 m	< 100 m
Central	Surface texture	CL	L	SL	LS	S & Sodic Loams
	Structure (peds)	> 5 mm	2–5 mm	1–2 mm	< 1 mm	single grain
	Clay depth	.25–.5 m	.5–1.0 m	1.0–1.5 m	1.5–2.0 m	> 2.0 m
	Fetch	> 800 m	400–800 m	400 m	300 m	300–400 m
	Bush strips	20–30 m wide N–S	20–20 cm wide N–S	40 m wide N–S	40 m wide N–S	40–60 m wide N–S

Note: Sandy soils with peds of < 1 mm, which have a low water holding capacity and therefore low agricultural production potential, should not be cleared as they do not have an ability to maintain adequate ground cover.

Wind erosion – assessment
(All regions)

The process to follow for the assessment of wind erosion hazard.

1. Determine the strength of the soil in terms of consistency (McDonald *et al.* Australia Soil and Land Survey – field Handbook p 115–116). Strength is determined by the force just sufficient to break or deform a 20 mm diameter piece of dry soil when a compressive shearing force is applied between thumb and forefinger.

Force	Description		Hazard "rating"
0	Loose	No force required. Separate particles as found in loose sands.	6
1	Very weak	Very small forces, almost nil.	5
2	Moderately weak	Small but significant force.	4
3	Moderately firm	Moderate to firm force.	2
> 3	Very firm to rigid	Disregard as wind erosion hazard, if particles > 2 mm.	1

2. Determine the particle or ped size: if the majority of sizes are less than 2 mm, it should be regarded as a wind erosion hazard.

Particle or ped size	Hazard "rating"
< 1 mm	6*
1–2 mm	5
2–5 mm	3

* > 90% goes through sieve (visual estimate).

3. Relief and aspect is also important. This can be combined to give ratings on the following landforms:

Landform	Hazard "rating"
Dune system	6
Exposed flat plain	5
Undulating country	4
Hilly terrain	2
Depressions	1

4. Add totals from 1–3 to determine the land capability class for the wind erosion hazard.

Added points	Land capability class	Comments
18	5 V	No clearing
16–17	4 IV	Clearing with wind protection left
< 16	3 I–III	Normal district practice

Waterlogging						
Agricultural Agricultural region	Soil surface texture	Land capability class				
		I	II	III	IV	V
South West	Drainage	well drained	moderately drained	imperfectly drained	poorly drained	v. poorly drained
	Landform element	undulating	undulating	plain	valley floor	swamp
	Soil type	S	SL	SCL duplex soils	C	C
	Soil depth	> 1.0 m	0.5–1.0 m	.2–.5 m	< 0.2 m	< 0.2 m
	Mottling	0–10%	10–20%	20–30%	30–70%	gleyed
	Inundation risk	Nil	low	medium	high	very high
Northern	Drainage	well drained	moderately drained	imperfectly drained	poorly drained	v. poorly drained
	Landform element	undulating	undulating	plain	valley floor	swamp
	Soil type	S	Sl	SCL duplex soils	C	C
	Soil depth	> 1.0 m	0.5–1.0 m	.2–.5 m	< 0.2 m	< 0.2 m
	Mottling	0–10%	10–20%	20–30%	30–70%	gleyed
	Inundation risk	Nil	low	medium	high	very high
South Coast	Drainage	well drained	moderately drained	imperfectly drained	poorly drained	v. poorly drained
	Landform element	undulating	undulating	plain	valley floor	swamp
	Soil type	S	SL	SCL duplex soils	C	C
	Soil depth	> 1.0 m	0.5–1.0 m	.2–.5 m	< 0.2 m	< 0.2 m
	Mottling	0–10%	10–20%	20–30%	30–70%	gleyed
	Inundation risk	Nil	Low	Medium	High	Very high
Note: Low lying depressions with poorly drained soils should not be cleared.						
Great Southern	Slope	> 5%	5–3	3–1%	1–0.1%	0%
	Depth to clay	> 1 m	> 1 m	0.5–1.0 m	.5–.15 m	< 0.15 m
	Soil type	deep S	SL	SC	LC	HC
	% gleyed	0–10%	10–20%	20–30%	30–70%	> 70%
	Site drainage	1	2	3	4	5
	Landform			plain/plateau	valley floor	swamps
	Drainage capacity			capable	uneven	incapable
Central	Drainage	well drained	moderately drained	imperfectly drained	poorly drained	v. poorly drained
	Landform element	undulating	undulating	plain	valley floor	swamp
	Soil type	S	SL	SCL duplex soils	C	C
	Soil depth	> 1.0 m	0.5–1.0 m	.2–.5 m	< 0.2 m	< 0.2 m
	Mottling	0–10%	10–20%	20–30%	30–70%	gleyed
	Inundation risk	Nil	Low	Medium	High	Very high

Soils classified as Class IV or V should generally not be cleared.

APPENDIX 4

GUIDELINES FOR SALINITY, EUTROPHICATION, and SOIL ACIDITY

Salinity
(all regions)

Rainfall greater than 1100 mm – no salinity risk if drainage lines are present.

Rainfall less than 1100 mm – there may be a risk due to high levels of salt storage in the regolith. This risk can be minimised by not clearing:

1. Rocky ridges and hill tops with freely draining soil profiles.
2. An area upslope of dykes and other geological features (where evident), which may act as hydrological barriers. Sufficient vegetation should be left (or established):
   (a) to cope with the extra recharge from upslope cleared areas assuming that extra recharge will not be < 7% of mean annual rainfall; and
   (b) the vegetation will transpire saline groundwater at 0.4 of Class pan A (see footnote). A minimum strip of 50 m width should be left.
3. An area adjacent to outcrops of country rock. Sufficient fringing vegetation should be left around the outcrop to transpire the runoff from the rock. The area can be calculated assuming runoff from the rock is 60% of annual rainfall and that the vegetation, in a water accumulating zone, will transpire at a rate equal to 0.8 of Class A pan evaporation. The calculation must also account for the rain falling directly on the vegetation (see footnote). A minimum strip of 50 m width should be left.
4. An area adjacent to existing defined streamlines. Where the streams are perennial a strip at least 75 m should be left on each side of the stream. For ephemeral streams the buffer width should be sufficient to cope with the extra recharge expected to result from upslope clearing (see 2 and 3).
5. An area adjacent to swamps, lakes and waterlogged depressions.

   The vegetative buffer strip must be of sufficient width to cope with the expected additional recharge resulting from upslope clearing (see 2 and 3 for assumptions).
6. Areas where it is known that the saline water table is currently less than 5 m from the natural soil surface in spring.
7. In areas where the potential spring line is the intersection of sandplain and heavier textured soils (i.e.: where a sandplain seep is likely) more hydrologic advantage would be gained by permitting clearing on the condition that an appropriately placed strip of exotic trees are planted sufficient to cope with the expected recharge from the upslope sandplain.
8. Naturally saline soils.
9. The total area of protected native vegetation left within a **sub-catchment*** should be relative to the mean annual rainfall. Suggested guideline figures are:

700–1100	mm rainfall	30%
500– 700	mm rainfall	25%
less than 500	mm rainfall	20%

   This figure will comprise of the areas left for purposes defined in 3–5 plus areas left for other conservation purposes. If these do not satisfy the requirement then the additional vegetation should be left on the upper 30% of the sub catchment.

Footnote: Area upslope of hydrologic barriers

Let area to be left = Y
(0.4 Epan) Y = area upslope x mean annual rainfall x 0.07

Example: If the mean annual rainfall is 400 mm (0.4 m), Epan 2000 mm (2.0 m) and the area upslope of barrier is 50 ha (500,000 m^2)

Then (0.4 x 2.0) Y = 500,000 x 0.4 x 0.07
0.8 Y = 14,000
Y = 17,500 m^2 or 1.75 ha

Area below rocks

Let area to be left = Y
(0.8 Epan) y = (rock area x 0.6 mean annual rainfall) + (Y x mean annual rainfall)

Example: If the mean annual rainfall is 400 mm (0.4 M), Epan 2000 mm (2.0 m) and the area of rocks is 20 ha (200,000 m^2)

Then (0.8 x 2.0) Y = (200,000 x 0.6 x 0.4) + (Y x 0.4)
1.2 Y = 48,000
Y = 40,000 m^2 or 4.0 ha

* Sub catchment: The catchment of the confluence of 2 of the first well defined drainage lines (first order streams) in the landscape. As a guide the area of the sub-catchment could be expected to be related to rainfall and the following are suggestions:

700–1100	mm	500 ha
500–700	mm	1000 ha
less than 500	mm	2000 ha

Eutrophication
(South West and South Coast regions)

1 Land with the following characteristics should not be cleared:

- land subject to regular flooding (flood interval < 1 year)
- land subject to prolonged inundation (> 2 weeks)

2 Buffer zones should be maintained around water bodies:

Water bodies	Site characteristics
Inlets	– no clearing within 75 m of high water mark
Rivers	– no clearing within 50 m of stream bank
Minor creeks, waterways and wetlands	– no clearing within 25 m of the stream bank.

3 Soils with a low to very low Phosphorous retention ability should not be cleared.

Soil description	Phosphate retention ability*	Land capability class
Deep (> 1 m) grey leached siliceous sands where iron–organic pans or coloured subsoils, if present, occur at depths greater than 1 m.	Very low	V
Grey leached sands or sandy loams with an iron–organic hard–pan within 1 m of the soil surface. Duplex soils with moderately deep (50–100 cm) sandy leached topsoils, or leached sands of similar depth overlying unrelated clays or a hardpan. Shallow (<50 cm) gravelly sands over rock.	Low	V

* Ranges of P retention index are: very low 0–2; low 2–10; moderate 10–20; moderately high 20–100 and high > 100.

Soil acidity

(Central and Northern regions only)

Soil acidity should be tested on yellow or pale yellow sandplain supporting Wodgil vegetation (*Acacia* spp.) or where naturally acid soils are suspected.

1. Identify areas of uniform vegetation (sandplain unit).

2. Soil sampling (subsoil 15–20 cm). Take one sample per hectare systematically across the unit, with a minimum of 30 samples within a sandplain unit. Then bulk each 30 samples and take a subsample for soil testing.

3. pH test on subsample (1:5 0.01M $CaCl_2$)

pH ≥ = 4.5	Not highly acidic, no clearing restrictions.
pH < 4.5	Proceed to 4.

4. Al test on subsample (1:5 0.005M KCl extract).

< 20 umol Al	Not highly acidic, no clearing restrictions.
≥ 20 umol Al	Do not clear.
	These levels of Aluminium significantly reduce plant growth resulting in an increased wind erosion risk and increased groundwater recharge.

APPENDIX 5

PROCEDURES RELATING TO THE APPLICATION FOR AND PROCESSING OF LICENCES TO CLEAR SPECIFIC TYPES OF NATIVE VEGETATION FOR WOODCHIPPING

PROCEDURE RELATING TO THE APPLICATION FOR, AND PROCESSING OF, LICENCES TO CLEAR SPECIFIC TYPES OF NATIVE VEGETATION FOR WOODCHIPPING

1. Relevance

This protocol relates to licence applications to clear specific native vegetation types form essentially cleared farmland where The Plantation Company either owns, is leasing, or is negotiating to lease land for the development of *E. globulus* plantations in the south west of Western Australia.

2. Vegetation Types Covered by the Protocol

a) Isolated paddock trees.

b) Copses of degraded trees with grass underneath that are smaller than 1 hectare and where canopy cover is less than 100 per cent.

3. General Provisions and Responsibilities

a) The Plantation Company will submit clearing applications on behalf of landowners where the Company is leasing the land (or on its own behalf where it owns the land).

b) The Company will not apply to clear such vegetation on steep slopes, areas of shallow soils or rock, and within 20 metres of defined streams.

c) In declared catchment areas, applications will be submitted to the District Office of WRC. In non-declared areas, applications will be submitted to the District Office of Agriculture Western Australia.

d) All applications will be "stamped" on the front page. The stamp will show the Company logo, the date of dispatch, and the District Officer of either WRC or Agriculture Western Australia to which the application is being sent for action.

e) At the time of submitting the application, a copy will be forwarded by The Company to the Senior Land Assessment Officer of Agriculture Western Australia, Baron-Hay Court, South Perth (Mr D Stanton). A disk containing the digital data for the map and a hard copy of the area concerned will be forwarded with the copy of the application.

f) All applications submitted in the manner set out above will be returned to the Company and the Company will be responsible for having the landowner execute the document (Agreement to Reserve or Conservation Covenant).

g) The relevant agency will make every effort possible to process applications within 30 days of the date shown on the "stamp" referred to in 3(d) above.

4. Procedure

a) In declared catchment areas, assessments of applications relating to the vegetation types described above (2(a) and (b), will be handled solely by WRC. WRC will then send those applications that are approved for clearing to the Commissioner of Soil and Land Conservation , for the issuing of a woodchip licence. Outside of the declared catchment areas, Agriculture Western Australia will assess the clearing proposals.

b) Applications relating to vegetation and/or conditions not covered by this protocol will be made to the appropriate District Office (as in 4(a) above), and that office will be made responsible for coordinating joint inspections and ensuring that the application is processed (as required in 3(g)).

c) Where the Company recognises that an application will require a joint inspection, then the Company will initiate and coordinate the inspection at the outset.

APPENDIX 6

RAPID RESPONSE PROCEDURES

RAPID RESPONSE PROCEDURES FOR IRP PROJECTS

Scope:

- Breeches of regulations under the Soil and Land Conservation Act, (land clearing and drainage);
- Complaints concerning land degradation issues.

Objective:

- To improve customer focus and service delivery when responding to complaints within the scope of the Soil and Land Conservation Act.
- Response to complainant within 10 working days.

Process:

1. Complaint received at Agriculture Western Australia office, date stamped and registered; (Verbal complaints must be recorded and given similar treatment)

2. Within 48 hours the Deputy Commissioner is to be notified of the complaint and provided with a summary of any readily available information concerning the matters raised. (Complaint to be dated and registered on receipt in the Office of the Commissioner Soil and Land Conservation)

3. Deputy Commissioner of Soil and Land Conservation will reach a decision and act:

   (a) on the basis of available information that a breech of the regulation has not occurred and or significant land degradation issues not evident. A letter to complainant within 10 working days confirming that the Commissioner of Soil and Land Conservation cannot or will not act with respect to the matter brought to his attention and indication avenues for resolution if appropriate

   (b) he is either unable to determine (a) above on the information available, or that the evidence suggests that significant land degradation is likely and may require a regulatory response.

   The Deputy Commissioner of Soil and Land Conservation will instruct that an inspection be performed and report prepared which identifies the specifics of the situation and establishes the likelihood of land degradation resulting. This report to be forwarded to the Deputy Commissioner within 5 working days

   Deputy Commissioner to respond to the complainant, confirming whether a regulatory response may result and outline proposed Agency action or provide other advice within 5 days.

APPENDIX 7

FORMS

WESTERN AUSTRALIA

THE EVIDENCE ACT, 1906

STATUTORY DECLARATION

I,_____

of_____ do solemnly and sincerely declare

that the _____*tonne/s of wood* **and/or** _____*individual paddock trees* for woodchipping is to be

recovered from_____(Land District), _____(Location No/s);

- **As shown in the accompanying Notice of Intent to Clear Land;**

And / or

- **Wood sourced from (please tick):**

Windfalls / Dead Paddock Trees	☐
Silvicultural Thinning (in accordance with a Management Plan endorsed by CALM)	☐
Fenceline Clearing (only to recognised fire breaks widths eg: Manjimup Shire 3 metres)	☐
Other (specify) _____	☐

and I make this solemn declaration conscientiously believing the same to be true and by virtue of Section 106 of the "Evidence Act 1906".

DECLARED AT _____ in the State of Western Australia

Signature of Declarer _____ Dated_____ 19_____

Contact Phone Number _____

before me* _____ Dated_____ 19_____

* Justice of the Peace/Commissioner of Declarations/Officer of Agriculture of WA/Public Servant - (Strike out whichever is inapplicable)

I declare that 20% of this property remains under native vegetation _____

Land Conservation Officer

Please Note:

1. The completion of this form does not remove the requirement to complete a NOTICE OF INTENT TO CLEAR LAND where more than one hectare is involved.

2. Bunnings Chip Mill requires that all logs being offered for chipping have the approval of the Commissioner Of Soil and Land Conservation.

   To obtain this approval please complete the details and return to your nearest Agriculture Western Australia office.

Supporting Manual 4.4
Memorandum of Understanding for the protection of remnant vegetation on private land in the agricultural region of Western Australia

WATER AND RIVERS
COMMISSION

Policy and Guidelines:

Granting of Licences to Clear Indigenous Vegetation in Catchments Subject to Clearing Control Legislation.

LAND MANAGEMENT AND CLEARING CONTROLS
REGIONAL SUPPORT BRANCH
REGIONAL SERVICES DIVISION
March, 1996

CONTENTS

1. INTRODUCTION

The control on clearing of indigenous vegetation in six south west river catchments in Western Australia, provided by the Country Areas Water Supply Act 1947; (Clearing Licence) Regulations 1981, is a vital tool used by the Water and Rivers Commission to provide water quality protection on catchment areas for the current and future benefit of the community.

Since the early 1980's the control of clearing has been administered by guidelines that were, to some extent, based on a 1980's understanding of processes causing land and water quality degradation. In the past decade a more objective understanding of these problems, and methods used to overcome them, has been sought and is now recognised by the wider community. Issues related to clearing have emerged that were not covered by the original guidelines and these were handled with special and interim guidelines that have required review and consolidation.

A prominent objective in the review process undertaken by the former Water Authority of Western Australia during 1994 was to redefine and document a policy and guidelines that enabled applications for clearing licences to be assessed and dealt with equitably. The review took into account the statutory responsibilities delegated to the former Water Authority under the Act (and Regulations) and updated how these responsibilities would be handled, taking into account current circumstances (these responsibilities have been assigned to the Water and Rivers Commission in the restructure of the water industry which took effect on January 1st 1996). The resulting policy and guidelines focuses on the maintenance of water quality protection principles. This not only features strong protection of sustainable remnant forest areas but also fosters landowner participation in sustainable land management practices that can provide economic, social and environmental benefits to the local and wider community.

Where possible the need for parity between these guidelines and the application of other legislation (e.g. Soil and Land Conservation Act, Land Clearing Regulations, 1986 and Environmental Protection Act) was observed by consultation with relevant agencies.

The guidelines documented herein are presented both individually and as a matrix of situations and decisions that will normally be made in relation to clearing licence applications. This information is intended not only to clarify with landowners the scope of clearing activity allowed, but also provide Water and Rivers Commission staff with guidelines to assist with clear, consistent and equitable decision making.

The focus of clearing control legislation and its guidelines are catchments and Zones within catchments. The definition of these areas is important to both landowners and Commission staff responding to clearing inquiries and licence applications. **The broad based land units, provided by the defined Zones, is important in forming a basis for land and water quality management strategies.**

Water and Rivers Commission staff dealing with catchment clearing control issues are located both in regional centres and in Perth (Hyatt Centre). Clear responsibilities exist for the processes to be followed in approving or refusing a licence application, and for any conditions that may be applied. There are similar responsibilities for ensuring that inquiries and applications are handled within appropriate time limits and to an accepted standard of practice. The Commission has a commitment to ensuring these standards of service are met, and where necessary improved.

It is important to realise that the Commission's Clearing Control policy and objectives are a statement on the desirable directions for water quality protection and improvement. Clearing Control Guidelines provide the rationale for decision making that, with other management strategies, will provide progress towards the objectives. For this reason it is vital that the guidelines are subject to scrutiny and review at a regular frequency.(no more than every 5 years)

The control of clearing, by using these or any other guidelines subsequently developed, cannot be expected to result in the ultimate reversal of rising salinity and nutrient trends. Alternative and sustainable land and water management systems, such as rehabilitation programs for degraded bush, replanting programs strategically located on the landscape and farm management systems geared towards better production and higher water use need to be accepted by the wider community, and put into place to achieve this objective.

The extent of indigenous vegetation currently remaining on areas of higher salinity hazard in controlled catchments, needs to be accepted as the basic minimum that can be tolerated. The quality of this vegetation has continued to degrade to a state that is well below that desirable from a water quality protection objective. Opportunities do exist however to address these issues and at the same time refine the development and application of integrated farm and catchment planning that will combine higher water using agricultural systems supplemented by the water using potential of remaining native vegetation.

The principles that are conveyed in this document are applicable to most water catchment areas in the south west of W.A., some of which are affected by water quality deterioration to a greater extent than the controlled catchments. Given the restrictions to land clearing that can be achieved by the Soil and Land Conservation Act, it is not the intent of the Water and Rivers Commission to extend clearing controls to any other catchment areas. However, progress towards the integration of sound principles in sustainable land use and water resources management could be achieved by Land Conservation District Committees, in areas outside controlled catchments, voluntarily adopting the management practices arising from the clearing control guidelines used by the Commission.

2. POLICY OBJECTIVES AND STATEMENT.

The Water and Rivers Commission is a key agency (though not the sole agency) with responsibilities for achieving government objectives in water quality protection in the State. Under these broad responsibilities, and in collaboration with other agencies, the Commission develops policy and strategies that seek to influence land uses and activities to ensure water resources are not unduly degraded and where appropriate improved.

Agricultural clearing in the south west of the State, particularly in river catchments that are partially cleared in the intermediate and lower rainfall areas, has resulted in approximately half the water resources of this area no longer being potable. **Controls on clearing of native vegetation in six river catchments / water reserves in the south west of W.A. is a vital strategy to preserve water quality values for current water supplies and future beneficial use of the resource by the community.**

The physical and hydrologic processes that lead to water quality decline in the south west of W.A. are now well understood compared to our knowledge of the 1970's. The links between the removal of high water use vegetation and the decline of water quality by salinity are recognised widely as are opportunities to reverse the emerging water quality trends. There is some uncertainty on confidently predicting the timing and extent of reversing rising salinity trends. However this should not influence the introduction of land and water quality management initiatives that can provide a real economic return in the medium term, improve social and community confidence and deliver land and water quality improvements strategically.

The challenge that now confronts the Water and Rivers Commission and other natural resource management agencies is, in partnership with each other and especially the land owning community, to work towards a state of sustainable land and water quality management. Each agency or interest group may have objectives with differing emphases and so situations will arise when compromise will be required. On these occasions respect for a partner's concerns, or the overall strategy, will have to prevail in decision making.

In regard to its responsibilities for Catchment Clearing Regulations the Water and Rivers Commission undertakes to operate in accordance with the following **Policy:**

With an objective of minimising further land and water quality degradation the Water and Rivers Commission will control clearing of indigenous vegetation on catchments specified in the Second Schedule of the Country Areas Water Supply Act 1947, by the use of guidelines for decision making.

By working in partnership with other Government Agencies, and the land owning community, the Commission will seek to influence land use strategies to preserve, and where possible improve, water quality values for current water supplies and for the future beneficial use of the water resource by the community.

3. DEFINITIONS: CATCHMENTS AND ZONES.

CATCHMENT AREAS

Improved mapping techniques have, over a period of time, shown discrepancies between **gazetted boundaries** for catchment areas and water reserves and **watershed boundaries**. These discrepancies are generally more prevalent around the inland areas of catchments because of the generally low relief and difficulty in defining the watershed boundary. For the purposes of determining whether or not a "licence to clear" is required **the gazetted catchment boundary applies.**

Inquiries and applications for licences to clear on locations where a discrepancy between the gazetted and watershed catchment boundaries exist, will be handled according to the following policy:

(i) **Gazetted Boundary Shown Inside Watershed Boundary.** (See Figure 1.)

Where the Location in question is inside the watershed boundary but **outside the gazetted boundary** an application for a "Licence to Clear" is not required by the Water and Rivers Commission. However the Regulations of the Soil and Land Conservation Act do apply and the Commissioner for Soil and Land Conservation and his representatives will be aware of principles that relate to soil, land and water quality degradation.

Where part of the location in question lies inside the gazetted catchment boundary then a "Licence to Clear" will be required for that part and will be subject to all terms and conditions as stated by these Guidelines.

(ii) **Gazetted Boundary Shown Outside Watershed Boundary.** (See Figure 2.)

Where the Location in question, or part thereof, is inside the gazetted boundary but **outside the watershed boundary,** an application for a **"Licence to Clear" is required.** The Water and Rivers Commission will issue a licence granting all clearing as per the application. It should be noted however that prior to the issue of a licence the application will be referred to the Commissioner for Soil and Land Conservation for assessment.

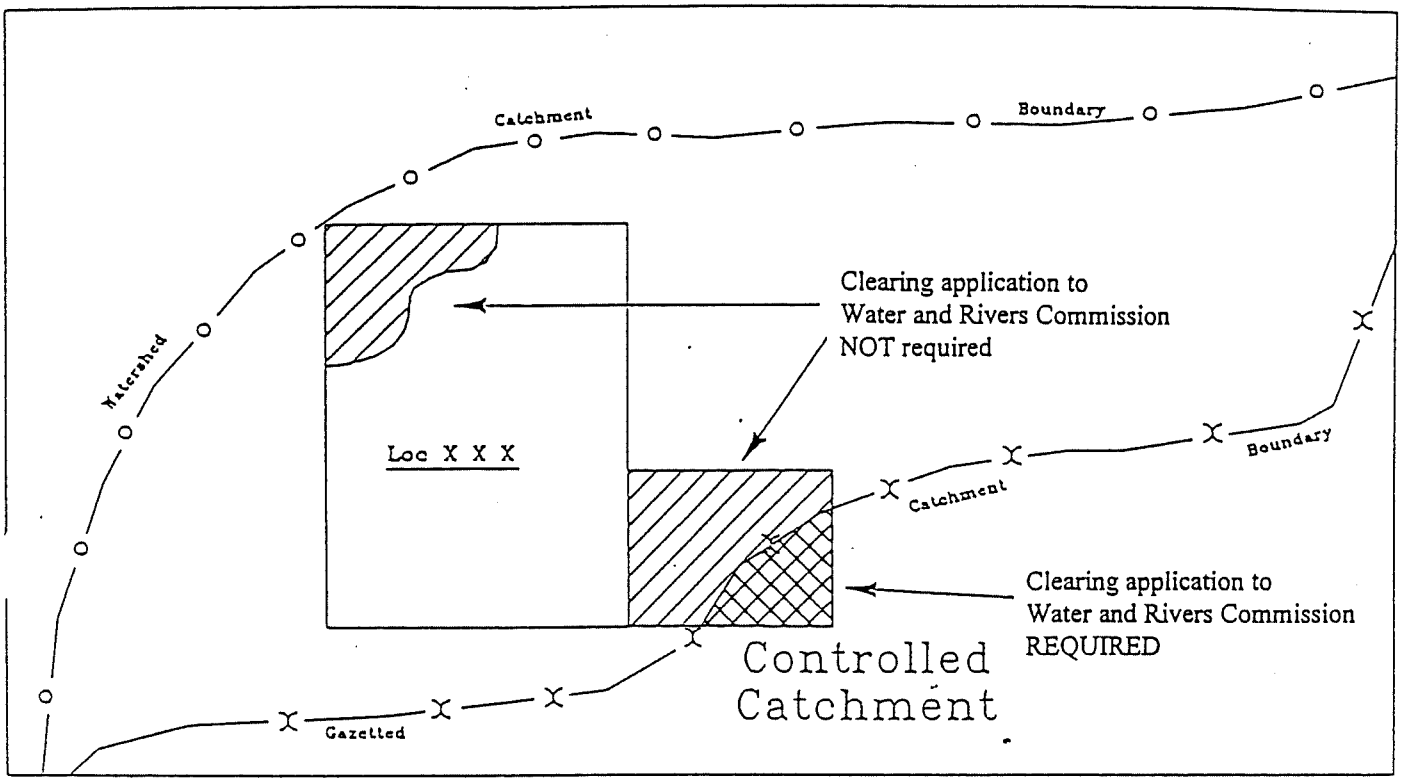


Figure 1. – Gazetted Boundary Shown Inside Watershed Boundary (See 3 (i))

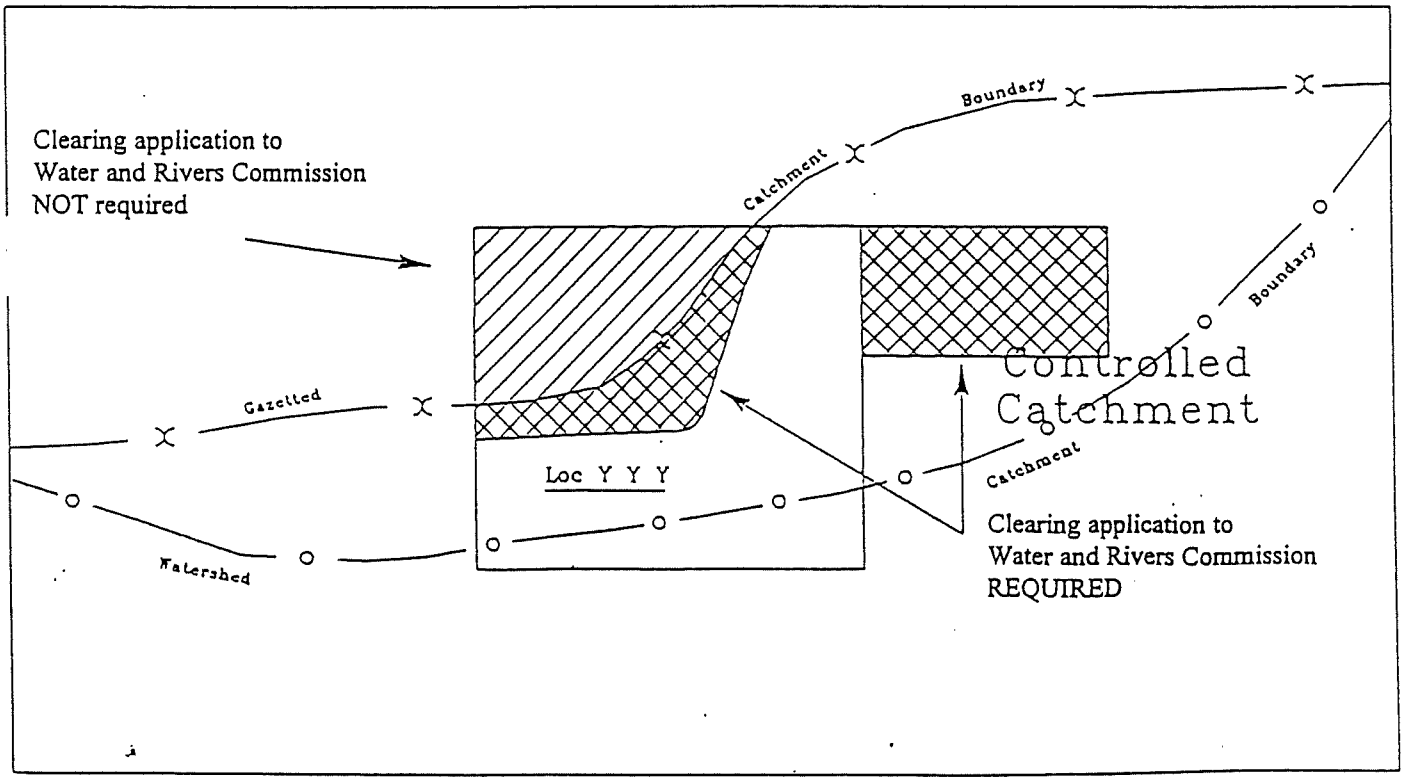


Figure 2. – Gazetted Boundary Shown Outside Watershed Boundary

CLEARING CONTROL ZONES

Background.

A close relationship is evident between decreasing rainfall and increasing salinity hazard. Information on the amount of salt stored in soil profiles throughout the South West of W.A. has been presented in many publications and the collection of further information continues. Generally salt storage increases as rainfall decreases the further one gets from the coast in South West areas.

The removal of native vegetation for agricultural purposes, in lower rainfall/higher salinity risk regions, changes the water balance of an area dramatically. Rather than rainfall being intercepted or transpired by vegetation (which accounts for at least 60% of water falling on native forests) water falling on cleared agricultural land will either run off the surface or infiltrate the soil profile raising the level of deeper, saline groundwaters.

Over a period of years groundwater levels will generally rise to the point where, on lower parts of the landscape, and where geological barriers exist, the pressure will be such that the saline groundwater will begin to discharge to the surface. The lower the rainfall the longer this process will take. **Of great concern is the length of time that this physical process takes and the rapidly increasing area of land that is being subject to waterlogging and salinisation. The impact of this is reflected in the increasing long term salinity levels of major south west rivers.** Other contaminants, once present in groundwater, in general, follow a similar route as salt into a stream.

Definition of Zones.

The definition of Zones within catchments that are subject to clearing controls is based largely on rainfall, an understanding of the causes of dryland salinity (discussed above) and an assessment of the salinity hazard. For proclamation and equity of application in all catchments, rainfall isohyets were modified to ensure Zone boundary definitions did not divide private property and where possible did not bisect land owning communities.

The four zones in order of diminishing stream salinity hazard from A to D, are indicated on the attached locality plans. The zones in each of the catchments are as follows:

Mundaring Weir Catchment Area	**Zones A & B**
Wellington Dam Catchment Area	**Zones A, B, C & D**
Harris River Dam Catchment Area	**Zone A**
Warren River Water Reserve	**Zones A, B, C & D**
Kent River Water Reserve	**Zones A, B & C**
Denmark River Catchment Area	**Zones A, B & C**

4. ISSUE OF LICENCES TO CLEAR:

In administering the legislation which prevents clearing of indigenous vegetation on controlled catchments, the Water and Rivers Commission's basic position is that it can only consider the issue of a Licence to Clear, when it is presented with an application containing sufficient detail to enable a fair and equitable decision. With applications that may be complex it is important for land owners and managers to realise that forward planning needs to be considered closely in the timing of an application for a licence. Although the process outlined below will be followed to the best of our ability, applicants can streamline the process efficiency by providing sufficient detail and, where required, plans that clearly present the nature and scale of the proposal.

Inquiries regarding, and applications for, Licences to Clear can be made at Commission Regional and Perth offices. Licences to clear are assessed on the basis of the particular location and the land holding as at December 15, 1978. Details pertaining to a property and its licensed clearing history are available at relevant Commission regional offices and the central Perth Office.

4(i) THE CLEARING LICENCE PROCESS

An inquiry regarding a Licence to Clear can be directed to a relevant officer of the Commission **by the owner or occupier** of a particular location or holding. Depending on the extent of information available to the officer, advice can be given on whether or not a licence is required and, if so, to what extent clearing may be permitted under the guidelines. Naturally, each case is unique to the location, or holding, and specific advice can only be given following an initial assessment.

- A licence application when received will be registered, checked for omissions and errors and a received date stamped on the application. Notification of the receipt of an application will be confirmed by mail.

- An officer responsible for assessing the application will conduct a review of the clearing history for the holding, consider the categories under which a licence may be issued and generally arrange a field inspection of the property with the land owner and representative of the Commissioner for Soil and Land Conservation.

- Following any resolution of uncertainties with the landowner, the Commissioner for Soil and Land Conservation will, where appropriate, provide an assessment of the proposed clearing in relation to the application.

- Following receipt of the assessment from the Commissioner, the Water and Rivers Commission will either grant a clearing licence, grant a licence for part of the area applied or recommend to the Board of the Water and Rivers Commission that the application be refused.

- Decisions to grant licences, where the nature of the application falls within the Guidelines, are normally approved by the Commission's regional staff.

The Clearing Licence Process (Cont.)

- A decision on the issue of a Licence will be made normally no more than 6 to 12 weeks from the registered application date, depending on the complexity of the application.

- As a backup measure only, to protect the ability of the applicant to either appeal the decision, or to claim compensation (if applicable), an application for a licence to clear is **deemed refused** if **no decision** is given within **six months** of the date of application, **unless agreed otherwise with the applicant.**

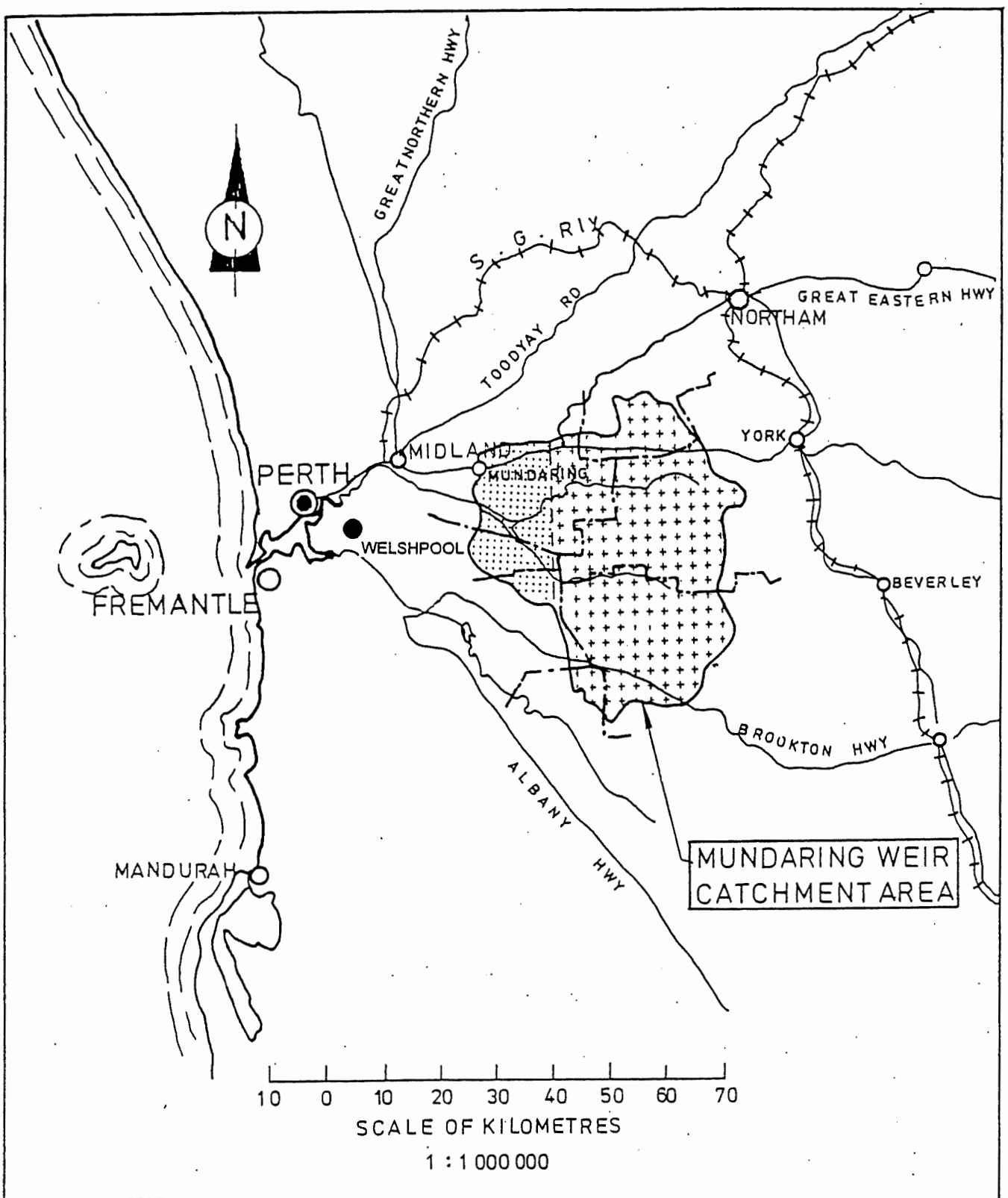
- Where the decision of the Commission is to refuse the issue of a Licence, or part thereof, the applicant will be provided with a copy of the Guidelines for Compensation and appeal provisions with the notification of refusal.

4(ii) DURATION OF LICENCES

In the past licences to clear, issued under various categories, may have been open ended, that is, had no date to indicate the period of validity for the licence. **It is now the policy of the Water and Rivers Commission to issue licences to clear for specific durations only.** Depending on the category under which a licence application has been registered, an assessment will be made on a reasonable duration for a licence to be issued, taking into consideration the measures that the applicant may agree to implement, should the application be approved.

For applications approved in categories such as farm management or establishment of tree plantations, where action can be expected soon after approval, licence duration between six and twelve months would be normal. In categories such as clearing of scattered trees or removal of forest produce, depending on the complexity of operations, management plans, replanting areas etc licence duration between six and twenty four months may be suitable.

The maximum period for the duration of clearing licences issued will be three years. A period such as this, even then, could only be expected when quite complex management plans are intended to be implemented over a period of time, and they involve progressive periods of clearing in a logical timetable. Water and Rivers Commission officers, in cases such as this, will arrange visits during the licence period to check progress of clearing and to ensure that those measures agreed to in the management plan are being undertaken.

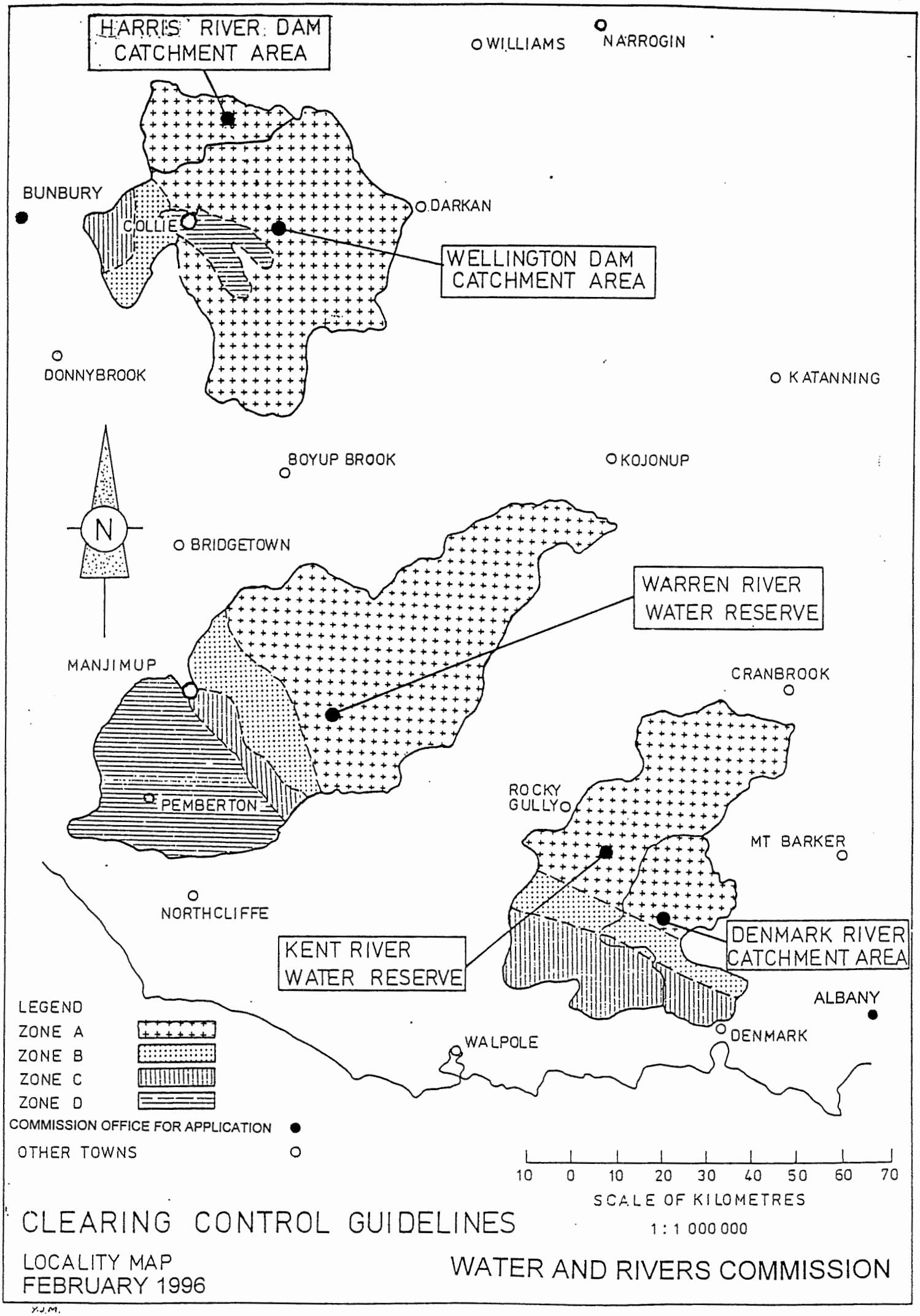


CLEARING CONTROL GUIDELINES

LOCALITY MAP

FEBRUARY 1996

WATER AND RIVERS COMMISSION



CLEARING CONTROL GUIDELINES

LOCALITY MAP
FEBRUARY 1996

WATER AND RIVERS COMMISSION

Y.J.M.

5. GUIDELINES FOR GRANTING OF LICENCES TO CLEAR INDIGENOUS VEGETATION.

GENERAL GUIDELINES

(i) SITUATIONS WHERE A LICENCE TO CLEAR IS NOT REQUIRED.

(ii) TABLES OF NORMAL DECISIONS ON GRANTING OF LICENCES TO CLEAR INDIGENOUS VEGETATION.

5(i) SITUATIONS WHERE A LICENCE TO CLEAR IS NOT REQUIRED - ALL ZONES

A licence to clear indigenous vegetation is not required in the following situations:

1. Clearing where the area of the total holding is less than 0.2 hectares.

2. Lopping of branches along fence, telephone and power lines.

3. Essential clearing of noxious weeds under the Agricultural and Related Resources Protection Act 1976.

4. Essential clearing of fire breaks under the Bush Fires Act 1954.

5. Maintenance of existing fencelines by the removal of regrowth and suckers not more than 10 metres beyond either side of fences.

6. For cutting down individual trees suitable for fencing and farm materials required for maintenance of existing improvements on the property concerned where:

   (i) trees are cut in a random manner from bush areas with not more than two trees per hectare;

   (ii) no action is taken that would be deleterious to the regrowth of the remaining stumps.

7. Grubbing or destruction of poison bush.

8. Removal of regrowth or suckers less than three years old on actively farmed pasture and cropping areas that were cleared at the time the clearing controls were introduced - or on areas subsequently licensed to be cleared.

NOTE 1. The situations listed above are contained in the Country Areas Water Supply (CAWS) (Clearing Licence) Regulations 1981 and can only be amended by Parliament. While several of the situations above have been identified recently as in need of rewording, further consultation is required to identify the best phrasing to be used. Recommendations regarding proposed changes will be made following this consultation.

NOTE 2. The above situations cover removal of indigenous vegetation that, under the CAWS Act, would require a licence **but are exempted by the Regulations.** Two situations not requiring a Licence to Clear under the Act but listed here for clarification are:

   (i) Removal of dead trees (see definition - Glossary of Terms)

   (ii) Removal of non - indigenous tree species except from areas covered by a "Conservation Covenant" or "Agreement to Reserve" under the Soil & Land Conservation Act.

5(ii). TABLE OF NORMAL DECISIONS ON GRANTING OF LICENCES TO CLEAR INDIGENOUS VEGETATION.

POLICY SUBJECT: **Granting of Licences to Clear IndigenousVegetation**

POLICY: **Clearing is controlled in the Mundaring Weir, Wellington Dam, Harris River Dam and Denmark River Catchment Areas and the Warren and Kent Rivers Water Reserves with an objective of minimising increases in stream salinity caused through the removal of indigenous vegetation, thereby providing water of good quality in reservoirs and conserving the quality of supplies for future consumers or beneficial uses.**

GUIDELINES:

The following tables provide a summary of the guidelines that are used in deciding for what reasons, and to what extent, licences to clear may be granted in defined zones of controlled catchment areas.

Normal decisions made in consideration of applications for a clearing licence are shown in the tables as a general guide only. Landowners can expect each application to be assessed on its merits and a decision arrived at based on:

. guidelines that have been developed to cover the range of categories under which licences have been regularly sought

and

. the Country Areas Water Supply Act 1947 and C.A.W.S. (Clearing Licence) Regulations, 1981.

Unless there are exceptional reasons, a licence will be refused for any part of an application that would lead to less than one-tenth part, (or any proportion as determined by Government Policy) of the land holding in question remaining under cover of indigenous vegetation.

Most applications for a licence to clear will also be referred to the Commissioner for Soil and Land Conservation for prior assessment under the relevant Legislation.

Additional details for referral requirements to the Commissioner, or his representative, are given in the details of each specific category for which a clearing licence may be sought.

Table 1. - ZONES "A"

ZONE A	CATEGORY Purpose of Clearing	NORMAL DECISION
	FARM MANAGEMENT . Clearing of new fencelines, building sites and dams and material for new improvements e.g. fencing, farm building, yards etc	Licences will normally be granted.
	EXTREME MANAGEMENT/ GOVERNMENT WORKS . Clearing for special situations where landowner proves extreme management problems. OR . Clearing for power lines, roads and other services by Govt Depts.	Licences will be granted for the minimum essential clearing on the condition that an equivalent area within Zone A(unless otherwise specified) is reforested and an Agreement to Reserve may be requested.
	FOREST PRODUCE FROM INDIGENOUS BUSH . Removal of millable timber. . Silvicultural thinning of indigenous forest on private property. . Production of cut flowers, brush and craftwood etc. from 'woody' native species	Licences may be granted subject to conditions that require: . the endorsement of a management plan, . retaining minimum levels of tree coverage . an agreement to reserve to be entered into **[See full conditions: Section 5(iii) - Removal of Forest Produce]**
	PADDOCK TREES, REMNANT STANDS AND PARKLAND CLEARED AREAS. Clearing of isolated paddock trees, small degraded forest stands and removal of trees from areas of existing parkland development.	Licences may be granted to clear an "area equivalent to" as per definition and conditions: **[See Section 5(iv) Paddock Trees, Small Degraded Forest Stands and Parkland Cleared Areas]**
	BROADACRE CLEARING OF INDIGENOUS VEGETATION . Clearing to establish plantations for chipwood or other commercial timber. . Strip Clearing . Removal of advanced(5 years & older) regrowth and suckers. . Clearing of undergrowth to develop under tree pasture. OR . Partial removal of trees and undergrowth to create parkland development. . Clearing of indigenous trees and vegetation for any other agricultural purpose.	Licences will NOT normally be granted. **But: [See Section 5(iv) Paddock Trees, Small Degraded Forest Stands and Parkland Cleared Areas]**

Table 2. - ZONES "B"

ZONE B	NORMAL DECISION
FARM MANAGEMENT . Clearing of new fencelines, building sites and dams and material for new improvements e.g. fencing, farm building, yards etc.	Licences will normally be granted.
EXTREME MANAGEMENT/ GOVERNMENT WORKS . Clearing for special situations where landowner proves extreme management problems. OR . Clearing for power lines, roads and other services by Govt Depts.	Licences will be granted for the minimum essential clearing on the condition that an equivalent area within Zone B(unless otherwise specified) is reforested and an Agreement to Reserve may be requested.
FOREST PRODUCE FROM INDIGENOUS BUSH . Removal of millable timber. . Silvicultural thinning of indigenous forest on private property. . Production of cut flowers, brush and craftwood etc. from 'woody' native species.	Licences may be granted subject to conditions that require: . the endorsement of a management plan, . retaining minimum levels of tree coverage . an agreement to reserve to be entered into **[See full conditions: Section 5(iii) - Removal of Forest Produce]**
PADDOCK TREES, REMNANT STANDS AND PARKLAND CLEARED AREAS. Clearing of isolated paddock trees, small degraded forest stands and removal of trees from areas of existing parkland development.	Licences may be granted to clear an "area equivalent to" as per definition and conditions: **[See Section 5(iv) Paddock Trees, Small Degraded Forest Stands and Parkland Cleared Areas]**
BROADACRE CLEARING OF INDIGENOUS VEGETATION . Clearing to establish plantations for chipwood or other commercial timber. . Strip Clearing . Removal of advanced(5 years & older) regrowth and suckers. . Clearing of undergrowth to develop under tree pasture. OR . Partial removal of trees and undergrowth to create parkland development. . Clearing of indigenous trees and vegetation for any other agricultural purpose.	Licences may be granted for up to 10 hectares cumulative from Dec 15, 1978 with consideration for a further 10 hectares, and subject to the statutory condition that **10% of the land holding remains under cover of indigenous forest.** **But: [See Section 5(iv) Paddock Trees, Small Degraded Forest Stands and Parkland Cleared Areas]**

Table 3. - ZONES "C"

ZONE C	NORMAL DECISION
FARM MANAGEMENT . Clearing of new fencelines, building sites and dams and material for new improvements e.g. fencing, farm building, yards etc	Licences will normally be granted.
EXTREME MANAGEMENT/ GOVERNMENT WORKS . Clearing for special situations where landowner proves extreme management problems. OR . Clearing for power lines, roads and other services by Govt Depts.	Licences will be granted for the minimum essential clearing on the condition that an equivalent area within Zone C (unless otherwise specified) is reforested and an Agreement to Reserve may be requested.
FOREST PRODUCE FROM INDIGENOUS BUSH . Removal of millable timber. . Silvicultural thinning of indigenous forest on private property. . Production of cut flowers, brush and craftwood etc. from 'woody' native species.	Licences may be granted subject to conditions that require: . the endorsement of a management plan, . retaining minimum levels of tree coverage . an agreement to reserve to be entered into **[See full conditions: Section 5(iii) - Removal of Forest Produce]**
PADDOCK TREES, REMNANT STANDS AND PARKLAND CLEARED AREAS. Clearing of isolated paddock trees, small degraded forest stands and removal of trees from areas of existing parkland development.	Licences may be granted to clear an "area equivalent to" as per definition and conditions: **[See Section 5(iv) Paddock Trees, Small Degraded Forest Stands and Parkland Cleared Areas]**
BROADACRE CLEARING OF INDIGENOUS VEGETATION . Clearing to establish plantations for chipwood or other commercial timber. . Strip Clearing . Removal of advanced(5 years & older) regrowth and suckers. . Clearing of undergrowth to develop under tree pasture. OR . Partial removal of trees and undergrowth to create parkland development. . Clearing of indigenous trees and vegetation for any other agricultural purpose.	Licences may be granted for up to 25 hectares cumulative from Dec 15, 1978 with consideration for a further 25 hectares, and subject to the statutory condition that **10% of the land holding remains under cover of indigenous forest.** **But: [See Section 5(iv) Paddock Trees, Small Degraded Forest Stands and Parkland Cleared Areas]**

ZONES "D"

Licences will normally be granted in Zone D, **subject to the statutory limitation that 10% of the land in question remains uncleared.**

The Water and Rivers Commission may, however, issue a licence to clear where the native vegetation on a location or holding is less than 10% subject to the conditions of Section 5(iv) - Scattered Trees, Small Degraded Forest Stands and Parkland Cleared Areas.

5. GUIDELINES FOR GRANTING OF LICENCES TO CLEAR INDIGENOUS VEGETATION.

SPECIFIC GUIDELINES

(iii) REMOVAL OF FOREST PRODUCE FROM INDIGENOUS FOREST ON PRIVATE PROPERTY.

(iv) REMOVAL OF ISOLATED TREES; AND TREES FROM SMALL, DEGRADED FOREST STANDS AND EXISTING PARKLAND CLEARED AREAS.

NOTE: **Applicants for a licence to clear should be aware that most applications for clearing will initially be referred to the Commissioner for Soil and Land Conservation for assessment under the relevant Act and Regulations. Specific activities, extent of clearing and categories relating to Water and Rivers Commission licence applications that will be referred to the Commissioner are detailed in the Guidelines that follow.**

5(iii) REMOVAL OF FOREST PRODUCE FROM INDIGENOUS FOREST ON PRIVATE PROPERTY.

POLICY: **A licence for the removal of forest produce from indigenousforests areas on private property in all catchments and water reserves subject to clearing control regulations may be issued subject to conditions as provided in the guidelines below.**

PURPOSE OF GUIDELINES.

These guidelines have been prepared to enable owners of substantial bush blocks to obtain some commercial benefit, and/or to improve the silvicultural status of the area, by carrying out forest management strategies that do not effect its long term water use potential or ecological stability.

Applications to remove native vegetation for the following purposes will be considered for a Licence to Clear for forest produce:

- Removal of millable timber.
- Silvicultural thinning.

The granting of a licence in this category will be dependent on the applicant submitting a Private Forest Management Plan in respect of the property concerned. The management plan will need to demonstrate that harvesting operation, and post harvesting management strategies, will be carried out in accordance with a set of criteria. (See guidelines for plan preparation at Appendix 3.)

In addition, to enable a licence to be granted, the applicant must be willing to abide by a set of conditions, information on which is outlined in the following section, and ensure they can meet the requirements of the Water and Rivers Commission in preparing the Private Forest Management Plan (see page 22)

The overriding aim of management plans will be to promote the growth of healthy tree and native understorey species to improve water use potential of the area. Identified management areas may be thinned to a minimum basal area (the basis for which is related to the Clearing Zone) that supports water use sufficiently high so as not allow above average water recharge to local groundwaters. **Since understorey species play an important part in groundwater control, and are a necessary component of a healthy forest structure, the exclusion of grazing by livestock will be considered mandatory after harvesting.**

To assist potential applicants for a licence in this category, a set of procedures is outlined that can assist to determine if an area is suitable, before the landowner accepts the cost of preparing a management plan.

GUIDELINES - GENERAL INFORMATION

The following information is provided as a guide to intending applicants for a licence for removal of forest produce in all controlled catchments and zones, and to Water and Rivers Commission officers responsible for outlining the conditions that will apply to a particular licence:

1. Following an initial assessment (see PROCEDURES) on the suitability of the proposed area, a Licence to Clear will only be issued following the presentation by the applicant of a Private Forest Management Plan endorsed by the Department of Conservation and Land Management.

2. Any costs associated with the plan preparation are to be borne by the proponent, his contractor or agent.

3. Areas approved for a licence for forest produce shall be recognised by the owners as defined areas of protected indigenous vegetation, by entering into an "Agreement to Reserve" or "Conservation Covenant" with the Commissioner for Soil and Land Conservation. This agreement will have the following requirements:

   . ensuring that any rehabilitation of areas damaged in the forest operation is implemented within 12 months of the licensed period.

   . excluding any grazing in the agreed management area which would hinder the regeneration and development of indigenous tree and understorey species for the period specified in the conditions of the licence. **Limited and well managed grazing may be permitted after an appropriate exclusion period when the proponent can show to the satisfaction of the Water and Rivers Commission that past practices have not degraded the agreed management area.** Monitoring of any grazing permitted will be undertaken by the Commission.

4. Portions of approved areas that have been subject to past grazing should be identified in the management plan for regeneration or rehabilitation to promote understorey recovery.

5. In areas considered for a Licence to Clear, no live tree removal or disturbance of vegetation, will be allowed from buffer zones identified on the endorsed management plan. Buffer zones shall generally be defined in accordance with those accepted by C.A.L.M. and the following **minimum widths** will apply:

First, Second and Third order streams : seepage areas, small swamps etc	30 metres either side of stream line or around perimeter of area.
Fourth order steams, medium size : seepage areas, swamps lakes etc	50 to 75 metres either side of of streamline or around perimeter of area.
Fifth order streams, rivers swamps lakes:	100 metres either side of streamline or around perimeter of area

GUIDELINES - GENERAL INFORMATION (Cont.)

6(i) All licences issued for Zones A & B will be subject to the maintenance of **a minimal basal area of 15 square metres per hectare in healthy trees spread uniformly over the approved forest management area and the protection and management of understorey species.**

6(ii) All licences issued for Zones C & D will be subject to the maintenance of **a minimal basal area of 10 square metres per hectare in healthy trees spread uniformly over the approved forest management area and the protection and management of understorey species.**

7. Licences may be granted to remove forest produce from suitable areas on which the Government has previously paid compensation and may extend to suitable areas within the last 10% of the area of the holding.

NOTE:

1. Guidelines to allow for consideration of applications for a Licence to Clear for:

   . Other forest produce such as brush wood, ti-tree, plant by-products etc

   are being considered by an inter Agency committee at present. Until these are available any activity that features the removal or cutting down of whole plants (even if the intention is to allow cultivation by resprouting) will be considered an activity that requires a Licence to Clear and for the interim will be **refused.**

   It is intended to update these guidelines with specific guidelines covering this category as soon as possible, which will be consistent with the procedures for the Soil & Land Conservation Act 1945.

2. The removal of minor portions of plants in activities such as the collection of wildflowers, cut flowers, seed collection etc ; where the plant is not removed or cut down, **do not require a Licence to Clear from the Water and Rivers Commission.**

OUTLINE OF PROCEDURES FOR THE ISSUE OF A LICENCE TO CLEAR FOR FOREST PRODUCE AND PREPARATION OF PRIVATE FOREST MANAGEMENT PLANS

1. An application for a Licence to Clear (purpose required - Forest Produce) shall be forwarded to the local, or Regional Office of the Water and Rivers Commission. The application shall be accompanied by a draft management statement that outlines the nature, scale and area of the proposed operation. This needs to include as a minimum:

   - A map, sketch or aerial photo (copy) of the location(s) showing the area(s) being applied for.

   - A measure or estimate of the total area (hectares) covered by the proposal

   - A brief history of use the area i.e. known logging activity, grazing activity, any special uses in the area or features worthy of inspection.

   - A brief description by the landowner (or agent/contractor) of the species composition of the area, the health of the area, what type of trees are intended to be removed and approximate numbers or volume of the produce to be removed.

   - An indication that any produce removed is to be sold as chipwood.

2. The Water and Rivers Commission will conduct an initial assessment of the application and generally arrange an inspection of the area of the proposed operation with the landowner. This may involve Commission staff, a forest management practitioner and where necessary a representative of the Commissioner for Soil and Land Conservation. An interim "Agreement to Reserve" or draft "Conservation Covenant" could be prepared and signed at this point.

3. Based on the initial assessment, the Commission will provide the applicant with a written indication that a licence will be issued, provided that the applicant submits, and has endorsed by C.A.L.M., a Private Forest Management Plan (see Appendix 3.)

NOTE: While it is expected that individual landowners may be able to address some criteria required in the management plan, it is also likely that some reference may need to be made to a qualified or experienced forester for advice in plan preparation.

OUTLINE OF PROCEDURES (Cont.)

4. The plan must provide necessary detail in accordance with regulations set out by the Commissioner for Soil and Land Conservation (see below) and be submitted to the Water and Rivers Commission. Where a proponent, or the logging operator, intends that any trees removed will be sold for chipwood then the following will be required:

   . An estimate of the total volume of timber to be chipped is provided in the management plan.

   . Water and Rivers Commission refers the application, and the management plan with CALM's endorsement, to the Commissioner for Soil and Land Conservation who will assess the proposal and issue the required woodchip licence if all criteria are met.

5. Where none of the timber removed from the management area is to be sold as chipwood, the Water and Rivers Commission will conduct an assessment but will not refer the application or management plan to the Commissioner.

6. Following receipt of a CALM endorsed Private Forest Management Plan and an interim "Agreement to Reserve" or "Draft Conservation Covenant" with the Commissioner for Soil and Land Conservation, the Water and Rivers Commission will issue a Licence to Clear subject to conditions as stated.

7. Following approval the applicant is to notify the local office of the Water and Rivers Commission at least one week prior to the commencement of logging operations.

5 (iv) REMOVAL OF ISOLATED TREES; AND TREES FROM SMALL, DEGRADED FOREST STANDS AND EXISTING PARKLAND CLEARED AREAS.

POLICY **In catchment areas and water reserves subject to clearing control legislation, a licence for the removal of scattered (paddock) trees and small, degraded forest stands and trees from existing parkland cleared areas may be issued subject to conditions provided in the attached guidelines.**

PURPOSE OF GUIDELINES

These guidelines recognise the impermanence of scattered trees, small degraded indigenous forest stands and trees within existing parkland cleared areas in controlled catchments. In the long term, continuing degradation is likely to lead to a loss of water using potential from these 'groups' of indigenous vegetation. It is also recognised that some landowners see benefits in cleaning up paddocks to create more productive areas for grazing, crops or commercial tree production but other landowners (and interest groups) have a high regard for the amenity and ecological values that this vegetation provides. In recognition of all of these factors, the Water and Rivers Commission will consider issuing licences to clear in this category in excess of that formerly granted.

The Commission expects that the applicant for a Licence to Clear will be willing to replace the equivalent area of clearing with either a replanted area that has greater water using potential in the medium and long term and is strategically located in the landscape. Alternatively, the land owner may wish to opt to trade the required replanting area for a combination of replanting and agreement to protect and manage larger areas of remnant indigenous vegetation. Several options are available and combinations will be considered.

These replanted or protected and managed areas will be required to be covered by an 'Agreement to Reserve' or a 'Conservation Covenant' under the Soil and Land Conservation Act. These memorials on the property title/s are binding on the landowner. (See General Information 2. Requirements for Issue of Clearing Licence.)

It is generally expected that landowners considering clearing in this category would also be reviewing other aspects of their farm operation and recognising that expanded replanting programs may be required to address emerging land (and hence water) degradation problems. Presentation of farm plans showing measures such as commercial planting, remnant bush protection, on farm water drainage/capture and shelter belt and agro forestry development and stock/grazing management programs etc., will allow a more complete assessment for a clearing licence decision. At this stage however a farm plan is not considered mandatory in applying for a licence to clear in this category but the application should be supported by reasons for the intended clearing.

GUIDELINES - GENERAL INFORMATION

General

The basis for assessments of applications for a Licence to Clear in this category will be to reach agreement with the landowner on an **equivalent area of clearing (EAC).**

While the process for assessing equivalent clearing areas for **isolated paddock trees** and **small degraded forest stands** may result in a reasonably straight forward licensing decision, the same may not apply to **parkland cleared areas.**

Some existing parkland areas have quite high densities of trees with very well developed leaf covers. Obviously (and based on the results of trials in the south west) such areas are doing quite an effective job in using water to prevent, or at least slow, groundwater recharge. While, on one hand, the Water and Rivers Commission recognises that individual trees in such areas may, from time to time, be lost by natural death, disease, drought and windthrow etc, it may consider the long term water use potential of such areas is sufficiently high that it may refuse a licence application.

A series of definitions are proposed for use in assessing equivalent clearing areas. These are practically based and with some interpretation will allow Commission officers and landowners to reach agreement.

1. Definitions.

(i) **Isolated paddock trees** will be considered as single live trees, under which generally no understorey exists and the surrounding area has been improved for pasture or cropping. For the purposes of definition there would not be more than an average of 3 to 10 trees per hectare. (Because the size and health of paddock trees may vary, the number of trees can be determined by agreement between the assessing officer and the landowner)

For calculating equivalent clearing areas: **100 paddock trees = 1.0 hectare clearing.**

(ii) **Small, degraded forest stands** will be considered as remnants generally not much more than 1.0 hectare in area and exhibit the following features:

- The stand displays health decline of tree species and low proportion of crown cover. (Leaf Area)
- Evidence of dead or dying trees in the stand.
- The area is generally devoid of natural undergrowth and has pasture grasses well established OR is lacking any surface vegetation.

For calculating equivalent clearing areas: **Direct area measure of degraded remnant stand proportioned (by extent of degradation) to produce equivalent area.**

(iii) **Parkland cleared areas** may generally be defined as having 10 to 80 mature trees per hectare, be generally devoid of any understorey or significant tree sapling regeneration and the area actively developed for pasture/cropping.

It is considered that the most equitable method for calculating equivalent clearing area at present is to count the number of trees and come to an agreement **based on the principles for isolated paddock trees.**

Alternatively, for large areas of parkland that have been assessed for compensation by the Valuer General, have been defined in terms of percentage coverage for particular areas. For example, parkland areas with very dense tree and crown coverage could well be assessed at 75% to 80%. At the lower end of the "parkland" scale, sparse tree and crown coverage could be assessed at 10% to 20%. In these cases, and with the agreement of the landowner, **equivalent areas for clearing** could be calculated by using the appropriate percentage cover for the area that is the subject of a clearing licence application.

GUIDELINES - GENERAL INFORMATION (Cont.)

2. Requirements for Issue of Clearing Licence.

Licences to clear isolated trees; small degraded forest stands and areas currently developed as parkland (that are not considered viable in the long term, for sustained water use potential), may be granted subject to the applicant agreeing to the following requirements, which are presented as a range of **options**:

OPTION 1 - REPLANTING - Planted Area (PA) = 2 x (EAC)

The applicant is **prepared to replant**, and **enter into an Agreement to Reserve** covering, an **area two (2) times the equivalent area of clearing** (EAC) assessed as follows:

The replanted area, to be reserved as permanent tree cover by an Agreement to Reserve (See Appendix 2 - Minimum Planting Specifications - Agreements to Reserve), may be new plantings OR previously planted areas that are satisfactory in species, density and location to the Water and Rivers Commission.

OPTION 2 - MINIMUM REPLANTING AND PROTECTION & MANAGEMENT OF REMNANT VEGETATION - (PA) = 1 x (EAC) plus (RV) = 4 x (EAC)

The applicant may reduce the replanting area and replace this with **remnant indigenous vegetation suitable in size, location, sustainability and potential for improved water use to the Water and Rivers Commission.** The relative areas of replanting and remnant bush will be covered by an 'Agreement to Reserve' and can be calculated as follows:

- All calculations will be based on **two (2) times** the equivalent area to be cleared.

- Where it is agreed that an applicant will **reduce the planting area** (down to a minimum of one (1) times the area to be cleared) then the area of remnant vegetation to be reserved shall be **four (4) times** the equivalent area of clearing.

OPTION 3 - NO REPLANTING but PROTECTION & MANAGEMENT OF LARGER AREA OF REMNANT VEGETATION -

(PA) = 0 plus (RV) = 10 x (EAC)

The applicant may opt to not replant any area by entering into an 'Agreement to Reserve' or 'Conservation Covenant' covering a minimum area **ten (10) times** the equivalent area of clearing. The areas of remnant indigenous vegetation shall be suitable in size, location, sustainability and potential for improved water use, to the Water and Rivers Commission.

Where a particular location, or holding does not contain sufficient suitable remnant vegetation to allow an applicant to accept this option then the deficit will be expected to be made up with a planted area (that is a minimum of one - tenth the difference between area available and required area of indigenous remnant.)

(NOTE: Where the **purpose for a licence** application includes removal of paddock trees, small degraded remnants or trees from parkland areas, to assist with the efficient **establishment of a commercial plantation** the Water and Rivers Commission will require that Options 1 or 2 will be accepted by the applicant.)

3. Involvement of Commissioner for Soil and Land Conservation (S&LC).

(i) Any individual degraded, remnant forest stands greater than 1.0 hectare in area, likely to be approved for clearing by the Water and Rivers Commission, must be notified to the Commissioner (S&LC) and where possible a joint inspection arranged.

(ii) Where all or some of the trees to be removed are intended to be sold for **chipwood** the application for a licence to clear, together with details of produce to be chipped and plans for an Agreement to Reserve (ATR), must be referred to the Commissioner (S&LC) or his representative. Based on the assessment of the Water and Rivers Commission officer, and with the discretion of a separate assessment, depending on the scale of the operation, the Commissioner will register the ATR, arrange a Statutory Declaration and issue a woodchip licence.

(iii) Where all of the trees to be removed are to be used for sawn timber products, utilised on the property or disposed of as waste, the Commissioner does not need to be notified in respect of a woodchip licence. Assessment of the application will be carried out by a Water and Rivers Commission officer and the necessary details regarding an ATR forwarded for registration.

(iv) **"Agreements to Reserve" and "Conservation Covenants"** - A Licence to Clear will not be granted until a completed Interim Agreement to Reserve, or Draft Conservation Covenant, under Part IVA, Section 30B(3) of the Soil and Land Conservation Act 1945, containing the conditions required by the Water and Rivers Commission, has been submitted to the Commission.

4. Repayment of Compensation.

In situations where compensation has been paid to the owner of a location as a result of a previous licence refusal, and is this time approved for clearing in this category, the proportion of compensation paid (relating to the area approved) would normally be expected to be repaid to the Water and Rivers Commission on the issue of the licence.

However, in recognition of the requirements for a licence in this category (replanting 2 x equivalent area clearing, protection of alternative remnant vegetation, agreement to reserve and protection/management of the reserved areas) no such repayment of compensation will be required.

APPENDIX

1. AGREEMENTS TO RESERVE.

   (i) **Plantation Areas - Minimum Planting and Maintenance Specifications**

   (ii) **Remnant Indigenous Forest Areas - Guidelines for Protection and Management** (To be released, still being developed)

2. PROCEDURE FOR ISSUING LICENCES FOR ESTABLISHMENT OF COMMERCIAL PLANTATIONS

3. PRIVATE FOREST MANAGEMENT PLANS - PRE-HARVEST APPROVAL CHECKLIST

4. GLOSSARY OF WORDS AND TERMS

APPENDIX 1.(i)

PLANTATION AREAS - MINIMUM PLANTING and MAINTENANCE SPECIFICATIONS

The following specifications are offered as a guide to landowners who enter into "Agreements to Reserve" (ATR) on planted areas as a result of being granted a Licence to Clear. They are not necessarily the same specifications that would apply to a commercial plantation agreement with a plantation owner, but rather specifications to ensure sustained water use potential, that is considered adequate by the Water and Rivers Commission at the present time. As knowledge and understanding of plantation areas increases the Commission may modify specifications. **The requirements for planted areas that are binding on the landowner, and memorialised on the certificate of title, are those that are specified on the "Agreement to Reserve".**

There is no intention to prevent landowners using higher standard specifications, nor to cover parts of commercial plantations with an ATR. However once the plantation areas have been harvested that area covered by the ATR is to be allowed to develop into an area of permanent tree cover. Likewise in the plantation period and thereafter, should trees in the ATR area be destroyed by fire, drought, disease, pests, livestock etc, the onus is on the landowner to replace the tree cover in that area and maintain it according to the minimum standards specified. Depending on the effectiveness of permanent tree cover on water use, the Commission may, on application from the landowner, allow the density of trees in such areas to be reduced.

1. Preparation

   1.1 The area of the agreement is to be adequately fenced to exclude all classes of livestock for a period to ensure that tree survival and development will not be inhibited.

   1.2 An effective firebreak is to be maintained around the area for three (3) summers following planting.

   1.3 No cultivation is to be performed on the area of planting.

2. Establishment of Planting

   2.1 The area shall be ripped to a depth of at least 500mm along the planting lines. The planting lines should not be more than 4.5 metres apart.

   2.2 Planting is to be carried out to produce a density of not less than 700 stems per hectare.

2.3 Pasture growth within the planting area shall be controlled in strips not less than 2 metres wide centred along the planting lines.

2.4 Planting shall comprise seedlings of selected Eucalypt and alternative species approved by the Commissioner of Soil and Land Conservation. The seedlings will be no more than one (1) year old nursery stock and are to be planted at approximately 3 metre spacing along ripped planting lines. Planting should preferably commence after the first good winter rains however planting may be carried out during autumn provided adequate watering and control of grass germination is carried out. It is recommended that planting be completed by the end of July to ensure satisfactory establishment of the seedlings before the surface soils dry.

3. Maintenance

3.1 Vermin Control

Effective vermin control is to be carried out to prevent damage to seedlings for two (2) years after planting.

3.2 Replacement

The Registered Proprietor shall ensure that dead seedlings or trees are replaced to produce a survival rate of not less than six hundred (600) trees per hectare planted, uniformly distributed over the area planted.

4. Ongoing Management

4.1 The Registered Proprietor shall manage the area of the Agreement so as not to impede the development and maturity of the trees thereon into an area with adequate permanent crown cover.

4.2 The Registered Proprietor will obtain from the Water and Rivers Commission agreement to reduce the density of trees in the area if, in the opinion of the Commission, a sustainable crown cover, or Leaf Area Index, can be maintained over the area.

APPENDIX 2

PROCEDURE RELATING TO THE APPLICATION FOR, AND PROCESSING OF, LICENCES TO CLEAR SPECIFIC TYPES OF NATIVE VEGETATION FOR PRODUCTION OF CHIPWOOD.

1. Relevance

This procedure relates to licence applications to clear specific native vegetation types from essentially cleared farmland where The Plantation Company either owns, is leasing, or is negotiating to lease land for the development of *E. globulus* plantations in the south west of Western Australia.

2. Vegetation types covered by the procedure

(a) Isolated paddock trees.

(b) Copses of degraded trees with grass underneath that area smaller than 1 hectare and where canopy cover is less than 100 per cent.

3. General provisions and responsibilities

(a) The Plantation Company will submit clearing applications on behalf of landowners where the Company is leasing the land (or on its own behalf where it owns the land).

(b) The Company will not apply to clear such vegetation on steep slopes, areas of shallow soils or rock, and within 20 metres of defined streams.

(c) In controlled catchments, applications should be submitted to the Regional Office of the Water and Rivers Commission In non-controlled catchments, applications should be submitted to the local District Office of Agriculture Western Australia.

(d) All applications will be "stamped" on the front page. The stamp will show the Company logo, the date of dispatch, and the Office of either the Water and Rivers Commission or Agriculture Western Australia to which the application is being sent for action.

(e) At the time of submitting the application, a copy will be forwarded by The Company to the Senior Land Assessment Officer of Agriculture Western Australia, Baron-Hay Court, South Perth (Mr D Stanton). A disk containing the digital data for the map and a hard copy of the map of the area concerned will be forwarded with the copy of the application.

(f) All applications submitted in the manner set out above will be returned to the Company and the Company will be responsible for having the landowner execute the document (Agreement to Reserve or Conservation Covenant).

(g) The relevant agency will make every effort possible to process applications within 30 days of the date shown on the "stamp" referred to in 3(d) above.

4. Procedure

(a) In controlled catchments, assessments of applications relating to the vegetation types described above (2(a) and (b)), will be handled solely by the Commission. The Commission will then send those applications that are approved for clearing to the Commissioner of Soil and Land Conservation, for the issuing of a wood chip licence. Outside the controlled catchments Agriculture Western Australia will assess the clearing proposals.

(b) Applications relating to vegetation and/or conditions not covered by this procedure will be made to the appropriate Office (as in 4(a) above), and that Office will be responsible for coordinating joint inspections and ensuring that the application is processed (as required in 3(g)).

(c) Where the Company recognises that an application will require a joint inspection, then the Company will initiate and co-ordinate the inspection at the outset.

(d) In the event of substantial disagreement, the Company may refer the matter to either or both, as may be appropriate, the Supervising Engineer Land Management and Clearing Controls Regional Support Branch Officer (Mr G Kikiros) of the Water and Rivers Commission, or the Senior Land Assessment Officer (Mr D Stanton) of the Agriculture Western Australia in the first instance.

(e) The Company will monitor the processing time of each application and will submit a summary of this information on a quarterly basis to both the Water and Rivers Commission and Agriculture Western Australia.

APPENDIX 3

PRIVATE FOREST MANAGEMENT PLAN

PRE-HARVESTING APPROVAL CHECKLIST

For native bush on private property

The following is a guide to the information that should be provided to enable evaluation of a Management Plan submitted for endorsement by the Department of Conservation & Land Management.

1. LANDOWNER Name:

Address:

Phone:

2. PROPERTY DETAILS

Location no:

Nearest road:

CALM District:

Plans (to attach):

* Locality Map
* Aerial Photo (copy) if available
* Property sketch (shows essential features) Scale 1:10,000 or larger

Total area of forest on the property:

NET AREA OF FOREST TO BE LOGGED:

3. CONTRACTOR/CONSULTANT

4. OVERALL AIM OF HARVESTING OPERATION

A brief statement indicating main objectives (For example, remove mature trees certain species, take available timber, thin to favour future crop trees, enhance regeneration ...)

5. CURRENT FOREST STATUS AND TYPE

Describe main features such as tree species; stand characteristics (structure, density or Basal Area, uniformity, maturity, regrowth, understorey); when last burnt or logged; any special vegetation types or major watercourses; impact of past grazing or weed invasion; etc.

6. DESCRIPTION OF PROPOSED OPERATION
Notes on silvicultural aspects, including for example:

* basal area before and after logging
    * type of trees to be retained
    * protection of regrowth or crop trees
    * retention of stream or edge buffers
* creation of gaps
    * uniformity of thinning
* dieback hygiene considerations
* timing of operation ... etc

7. ANY CONSTRAINTS ON, OR IMPACTS OF, THE OPERATION

* Soil erosion or disease hazards?
* Visual/landscape/wildlife habitat values?
* Timing/season?
* Neighbouring land use?
* Access for log trucks/siting of log landings?

8. POST HARVEST MANAGEMENT

* Is a burn planned by the owner soon?
* Will regeneration be protected?
* Is livestock browsing restricted?
* Is another harvest envisaged?
* Vermin control

9. FURTHER REFERENCE MATERIAL

Information from the following documents may be referred to as background or to relate standards or procedures applicable to Dept of CALM controlled operations.
Silvicultural Specifications:

* 1/91 Fire as a Silvicultural Tool in the Jarrah Forest
* 2/91 Treemarking and Silvicultural Treatment in the Jarrah Forest
* 3/91 Silvicultural Practice in the Karri Forest
* 1/92 Karri Thinning
* 4/89 Regeneration in Forest Affected by P. cinnamomi
    * Timber Harvesting in Western Australia. March 1993 Edition (comprises Code of Logging Practice and Manual of Logging Specifications).

APPENDIX 4.

GLOSSARY of WORDS and TERMS

This glossary has been compiled in alphabetical order for ease of reference. As well as a simple meaning, some of the words and terms, have been defined as per the Country Areas Water Supply Act or Country Areas Water Supply (Clearing Licence) Regulations

.....

Agreement to Reserve; Voluntary agreement between a landowner and the Commissioner for Soil and Land Conservation whereby the landowner agrees to retain vegetation in a defined area. Generally agreements are revocable and can be reviewed at any time by either party. However all Agreements negotiated by the Water and Rivers Commission will be in perpetuity and memorialised on the certificate of title to retain either permanent tree cover over planted areas or to retain and maintain indigenous vegetation.

basal area; Method of expression of tree cover density in an area where the total area of tree trunk, measured at breast height, is expressed as square metres per hectare of land area.

broadacre clearing; total, or near total, removal of all indigenous vegetation in an area greater than 1 (one) hectare. Generally associated with changes in land use such as for agriculture, mining and development.

bush block; an identifiable area within which the remaining indigenous vegetation is intact to the point where most tree and understorey species are represented and are self regenerating.

catchment; a geographic area, defined by a catchment boundary, within which all surface drainage is delivered to streams, rivers and / or lakes.

catchment area; (As in C.A.W.S. Act) All land over, through or under which any water flows, runs or percolates directly or indirectly into any reservoir erected or used in connection with any water works. In this document, it refers to catchment boundaries gazetted for the Denmark River, Harris River Dam, Mundaring Weir and Wellington Dam catchments (controlled catchments).

clear;(As in C.A.W.S. Act) to cause or permit the indigenous undergrowth, bush or trees on the land to be removed or destroyed, or so damaged as to be eventually destroyed, or to cause the removal from the land of vegetation not under cultivation.

Conservation Covenant; an irrevocable covenant by the owner of land and registered as a memorial on the certificate of title to set aside land for the protection and management of indigenous vegetation.

controlled land;(As in C.A.W.S. Act) means land comprised within the boundaries of such of the catchment areas or water reserves defined under Section 9 of the C.A.W.S. Act and as specified in the Second Schedule to this Act.

dead tree/s; those trees (indigenous) on which no green foliage remains and which has contained no evidence of resprouting for a period of twelve months.

degraded forest stand; areas of remnant indigenous vegetation that may exhibit one, or a combination, of the following features:
General health decline and low crown coverage;
Evidence of above normal proportion of dead and dying trees in the stand;
A lack, or severe depletion, of understorey species;
Invasion of weeds and grasses throughout the area;
Lack of any surface vegetation.

excluding grazing; management action which prevents all classes of livestock from obtaining unrestricted access to a designated area, and therefore prevents degradation or destruction of that area's vegetation. By agreement this would not exclude emergency shelter for livestock in such areas when weather alerts were forecast and stock management practices could ensure that stock were removed and excluded, as soon as the alert was lifted.

forest produce; products which by sale, or use, by an applicant for a Licence to Clear can provide some commercial return or benefit.

holding (land);(As in C.A.W.S. Act) any piece or parcel of land which is held (a) in fee simple. (b) on conditional purchase lease, pastoral lease, or otherwise under the Land Act, 1933 or prior Act repealed by that Act, or any Regulation made thereunder. (c) on a perpetual lease granted under the War Service Land Settlement Scheme Act, 1954 ..... and which is constituted, owned, or occupied as one property.

indigenous vegetation; vegetation originating in and characterising a particular region.

isolated tree; single indigenous trees, isolated from one another in a cleared and developed 'paddock' situation; characterised by canopies that generally do not intermingle or overlap, and by lack of understorey species.

Licence to Clear; Provision by the Water and Rivers Commission of an authorisation for a landowner to clear land, under the provisions of the C.A.W.S. Act and in accordance with conditions as specified and attached (to the Licence)

millable timber; wood products which, following removal or cutting down, are able to processed by any timber mill (or by the applicant) for standard or special sawn timber materials OR are able to be processed as chipwood by any woodchipping facility.

parkland area (or parkland cleared area); area which, by removal of understorey and some tree species, has been developed to support, under the trees that remain, pasture and /or cropping areas.

poison bush; (As in Regulations) covers any species that may be regarded as poison plants and includes toxic species of the genera Gastrolobium and Oxylobium.

Private Forest Management Plan; a plan that describes management practices to be undertaken on privately owned indigenous forest areas. In respect to these guidelines the plan requires endorsement by the Dept of Conservation and Land Management and also requires that a number of criteria are addressed by the plan to gain approval by the Water and Rivers Commission.

recharge area; an area of land which allows percolation of water to the extent that groundwater levels under the area are increased. The rate of recharge is dependant on the areas vegetation cover, soil types and characteristics, slope and drainage characteristics etc.

regeneration; used in reference to indigenous vegetation in this document and refers to the process where an area will recover its previous species variety, diversity and eventually density without necessarily any action other than protection of the area, especially by the exclusion of livestock.

rehabilitation; used in reference to indigenous vegetation in this document and refers to the process where an area may need a combination of management initiatives to encourage regeneration and hence aid the recovery of the vegetation species, variety, diversity and density. These would certainly include exclusion of livestock and perhaps seeding, weed control, fire management, vermin control, in fill planting and other action depending on the state of degradation.

silviculture (silvicultural thinning); management of forest area to encourage the growth of desired species (mostly tree species) by selected thinning (reduction in density) of unwanted species or stems that are unhealthy or can be used for timber produce.

understorey/undergrowth; refers to that layer of the forest containing shrub, ground cover, native grasses, ferns and palms, tree seedlings and advanced regrowth etc, reasonably low in profile compared to the average height of the overstorey, tree species.

Water Reserve; (As in C.A.W.S. Act) A portion or area of the State which the Governor, by Order in Council, declares to be a water reserve for the purposes of the C.A.W.S. Act.
In this Document it refers to catchment boundaries gazetted for the Kent River and Warren River catchments (controlled catchments).

Zone (as in Clearing Zone) an area shown on the Locality Maps included in this document. The Zones were created for the purpose of dividing controlled land into zones of decreasing water quality hazard from Zone A to Zone D. In application the Zones are used to define what degree of limitation will normally be applied to decisions on the issue of Licences to Clear.

Schedule 5

SINGLE EVALUATION PROCESS

The single evaluation process established by this memorandum takes account of the statutory assessment and decision making roles of the Commissioner, the EPA, and the signatory agencies. It improves administrative arrangements between agencies involved in natural resource management, and ensures that other natural resource conservation issues are considered before any further clearing occurs on private land.

Under this process assessment of clearing proposals proceeds through a number of levels, with unacceptable proposals identified early in the assessment. The first three levels of assessment are the prime responsibility of the Commissioner for Soil and Land Conservation, who receives advice from assessing officers working to agreed criteria. Assessment these three levels will be conducted within 90 days of a correctly prepared Notice of Intent being accepted by Agriculture Western Australia.

Advice on the conservation risks associated with each clearing proposal will be provided to the Commissioner through a working group drawn from the Department of Environmental Protection, the Department of Conservation and Land Management, the Water and Rivers Commission and Agriculture Western Australia. Working group meetings will be held every four weeks.

Following advice from the working group, the Commissioner will refer proposals to agencies who have concerns which can be addressed within their statutory powers. Where concerns require further investigation, and possibly the use of statutory powers beyond those available to the agencies, the Commissioner will bring proposals to the attention of the Environmental Protection Authority, which is responsible for the final level of assessment. Information and advice collected in the first three levels of assessment is provided to assist in this further evaluation and action.

Special purpose six monthly reports will be prepared by the Commissioner, listing the proposals evaluated, the results of those evaluations, and any adjustments made to the guidelines. These reports will be made available to the Soil and Land Conservation Council, the Environmental Protection Authority, the National Parks and Nature Conservation Authority, the Water and Rivers Commission, and the Chief Executive Officer of each of the agencies. It is anticipated that much of this material will become publicly available through the annual reports of the Soil and Land Conservation Council, Agriculture WA, and the EPA.

LANDHOLDER RESPONSIBILITIES

A summary of the evaluation criteria and process will be available to landholders considering clearing. This will include an outline of the evaluation criteria and process, drawn from the material agreed to in this memorandum. The information will clearly indicate the main areas in which the Commissioner already considers that clearing is likely to lead to land degradation because less than 20% of the original vegetation remains.

All landholders proposing to clear more than 1 hectare of indigenous vegetation are required to submit a Notice of Intent to the Commissioner of Soil and Land Conservation, through the offices of Agriculture WA. Landholders will be required to provide information to a set standard in their Notice of Intent, and to insert an advertisement in the public notices column of their main local newspaper, or equivalent rural newspaper, and through the Saturday morning edition of the West Australian.

The Notice of Intent will be judged to have been lodged on the day both a completed Notice of Intent form and a copy of the public advertisements is accepted and date stamped by an Agriculture WA office.

LEVEL 1 REVIEW

Desk-top review by Agriculture Western Australia

Notices of Intent will be assessed against agreed criteria by Agriculture Western Australia within 10 working days, after which it will be:

(i) Referred to the Commissioner for decision to object, because the proposal was located in a local government area where less than 20% of the original vegetation remains within the main agricultural area.

(ii) Referred to the Commissioner for decision to object, because assessment against the criteria showed cause for concern, such as being in an area where land degradation issues have already been identified. This assessment may not include an on-site inspection.

(iii) Passed for review at Level 2, on the basis that the proposal will require more detailed investigation on which its merits can be judged.

If the NOI is to be referred to the Commissioner for a decision to object, the landholder will be given a copy of the technical assessment report, and can withdraw the Notice of Intent before the Commissioner's decision by providing a written undertaking not to clear the land. If the NOI proceeds to the Commissioner and a decision is made to object then a Soil Conservation Notice will be placed on the land, following which the landholder can formally appeal to the Minister for Primary Industry against the Notice. If the appeal is successful then the Commissioner will refer the NOI to Level 3 for advice on any concerns held by other agencies and authorities.

LEVEL 2 REVIEW

Property inspection and report

Within a 30 day period an officer from Agriculture Western Australia, along with staff from other agencies as appropriate and negotiated regionally, will inspect the property with the landholder or his representative, collect readily available information, and prepare a written evaluation of the proposal, along with their recommendation.

The written evaluation will follow a common format, and be based on the manuals and property report form contained in Schedule 4. The landholder will then be notified, in writing, of whether it has been:

(i) Referred to the Commissioner for decision to object, on the basis that when the proposal was assessed against the agreed criteria, factors were identified which the Commissioner has already agreed indicate the proposal would lead to land degradation.

(ii) Referred to Level 3 for detailed review on the basis of biodiversity or other issues beyond the powers of the Commissioner, or if any future management required to ensure the acceptability of the proposal appear to fall outside the power of the Commissioner to regulate. Where necessary, management conditions within which some clearing may be acceptable will be outlined.

During Level 2 no inferred agreement, such as a detailed draft Agreement to Reserve, will be developed with the landholder. Instead, simple line drawings of the clearing proposal are required to enable the Commissioner and the Level 3 working group to review the proposal.

If the NOI is to be referred to the Commissioner for a decision to object, the landholder will be given a copy of the technical assessment report, and can withdraw the Notice of Intent before the Commissioner's decision by providing a written undertaking not to clear the land. If the NOI proceeds to the Commissioner and a decision is made to object then a Soil Conservation Notice will be placed on the land, following which the landholder can formally appeal to the Minister for Primary Industry against the Soil Conservation Notice. If the appeal is successful then the Commissioner will refer the NOI to Level 3 for advice on any concerns held by other agencies and authorities.

LEVEL 3 REVIEW

Working group review

This level of review comprises a scheduled meeting of the inter-agency representatives. Decisions and comments from these meetings are provided as advice to the Commissioner, who carries the statutory decision making power for Levels 1, 2 and 3. Each meeting will be the formal point at which agencies review the list of proposals that have come through Level 1 and Level 2 assessment without total objection, and formally raise, discuss and record any concerns they may have. Formal minutes will be kept of each meeting, and these will provide the carriage of advice from the working group to the Commissioner.

Meeting papers containing sufficient information for decision making will be delivered to all working party members at least five working days before each meeting. These papers will list each proposal reviewed in the previous four weeks, and include the assessing officer's written evaluation of all proposals that have come through Level 1 and Level 2 assessment without total objection.

The working group will be able to:

(i) Advise the Commissioner of those proposals where they have no objection to clearing proceeding to an agreed level, and to provide advice on any conditions within the powers of the Commissioner they believe should be attached to such clearing.

(ii) Advise the Commissioner of those proposals where they believe clearing should be objected to within the powers of the Commissioner.

(iii) Recommend proposals for referral to other agencies because the concerns raised are best dealt with under the statutory controls of those agencies.

(iv) Recommend proposals for referral to the Environmental Protection Authority for assessment at Level 4, on the basis that the issues raised are beyond the powers of the Commissioner or the other agencies to deal with.

(v) Review a list of proposals being objected to and, where appropriate, provide advice on mechanisms that may reduce any economic concerns the landholder may have over his inability to legally clear land.

Where the Commissioner refers a proposal to other agencies or to the EPA for further action a Soil Conservation Notice objecting to the clearing will be lodged with the landholder, pending further advice. If the landholder wishes to appeal against a decision to object to clearing the normal appeal provisions of the Soil and Land Conservation Act are open to them. If the appeal is successful the proposal will be referred to Level 4.

Written summaries of all advice, and a list of proposals evaluated in each four week period, will be provided to the Soil and Land Conservation Council and the Environmental Protection Authority.

Up to this stage the process acts as advisory to the Commissioner for Soil and Land Conservation.
Beyond this stage proposals enter the Environmental Protection Authority's formal assessment process.

LEVEL 4 REVIEW

Formal assessment by the Environmental Protection Authority

This level of review comprises formal assessment by the Environmental Protection Authority , which has adapted its Consultative Environmental Review procedures to expedite the assessment of proposals to clear referred by the Commissioner for Soil and Land Conservation, and for which sufficient information to enable decision making on the level of assessment is available. Key features of this process are:

• a clear referral process, with a letter from the Commissioner, containing copies of information collected to date on the proposal (format as set out in *Schedule 7*).

• a clear recommendation from the Commissioner that the land clearing proposal be assessed at CER Level (subject to appeal), and to follow the expedited process set out in *Schedule 7*.

• farm plans, prepared to Agriculture WA guidelines, to form the basis of any ongoing farm management commitments.

Where additional information on the environmental factors pertaining to a proposal is required during the EPA evaluation process, it will be the responsibility of the landholder to provide that information.

Where some clearing is recommended by the EPA for approval by the Minister for Environment, and some land to be left uncleared, the use of an Agreement to Reserve may be specified in the Ministerial Conditions issued subsequent to that decision.

RIGHTS OF THE LANDHOLDER

The system will be operated so as to give the landholder "early warning" of any costs or statutory implications likely to arise as the process continues. As the proposal passes through each level of evaluation the landholders will be sent advice on the progress of the proposal, and the results of evaluation at that particular level of assessment.

The landholder will be able to withdraw from the Commissioner's evaluation process without a memorial being placed on the title, subject to a written agreement not to actively or passively clear the land. The proposal may become subject to conditions once it is formally assessed by the EPA, even if clearing is not approved.

If the landholder wishes to appeal against a decision to object to clearing made at Level 1,2 or 3, the normal appeal provisions of the Soil and Land Conservation Act are available. However, the Commissioner will inform the landholder that it would be prudent to first seek assessment by the EPA for the clearing proposal, as conditions imposed by the Minister for the Environment can override any decision made under the Soil and Land Conservation Act.

Schedule 6

COUNTRY WATER SUPPLY CATCHMENTS

Special arrangements are required for the six catchments in the South West specified in the Second Schedule to the Country Areas Water Supply Act 1947, which are subject to controls on clearing under Part IIA of that Act. The catchments are, since November 1976 the Wellington Dam and Harris River Dam Catchments, and since December 1978, the Warren River and Kent River Water Reserves, and the Denmark River and Mundaring Weir Catchment Areas. In these areas landholders are required to apply to the Water and Rivers Commission for a licence to clear indigenous vegetation.

The operation of the Country Areas Water Supply Act is currently under review, as is the Soil and Land Conservation Act. This schedule confirms interim arrangements for the assessment of clearing proposals in the controlled catchments, pending the finalisation of the legislative reviews currently underway.

Notification

The Water and Rivers Commission will refer to the Commissioner for Soil and Land Conservation all proposals currently notifiable under the Soil and Land Conservation Act. It is noted that under Regulations for the Soil and Land Conservation Act notifiable land is those areas where more than 1 hectare is to be cleared, and which involve a change in land-use. The definition of the term clearing used in the Soil and Land Conservation Act specifically excludes the cutting of trees for firewood, posts or timber. If any doubt occurs in deciding which applications are referable, the Commissioner will be notified of the proposal so that he can make his own decision on the matter.

The current regulation exempts landholders in the controlled catchments from submitting Notices of Intent, but any landholder who inadvertently submits or intends to submit a Notice of Intent to the Commissioner for Soil and Land Conservation will be required to first apply directly to the Water and Rivers Commission. Any illegal clearing that comes to the attention of the Commissioner for Soil and Land Conservation will be referred to the Water and Rivers Commission, in addition to action being taken under the Soil and Land Conservation Act.

The Commissioner has a statutory responsibility to act on any clearing or other land management issues that come to his attention and are likely to lead to land degradation.

Public advertisement

As an interim arrangement, pending the review of legislation currently underway, the Water and Rivers Commission will insert a public advertisement in the public notices column of the West Australian on the first Saturday of each month listing all applications to clear that have been referred to the Commissioner for Soil and Land Conservation.

Evaluation process

Once the referral to the Commissioner has been date stamped at an Agriculture Western Australia office, it will be dealt with through the processes established in the Memorandum of Understanding. This requires the Commissioner to have determined within 90 days if there are grounds for objection.

Evaluation at Level 1 will be conducted by Agriculture Western Australia, with consideration given to any information supplied by the proponent or the Water and Rivers Commission. Where a property visit occurs this will be undertaken in conjunction with the appropriate staff from the Water and Rivers Commission. If the Commissioner decides to reject the proposal without a site visit Water and Rivers Commission staff will still visit the property.

Evaluation at Level 2 will be jointly conducted by Agriculture Western Australia and the Water and Rivers Commission, along with any other agency or body as appropriate under the general provisions of this

Memorandum. To ensure this occurs the Agriculture Western Australia assessment officer will contact the appropriate Water and Rivers Commission staff, and other agencies as appropriate, to seek available information and to make arrangements for a joint inspection. To ensure compatibility between assessments inside and outside controlled catchments, Agriculture Western Australia will work through an agreed single contact person within the Commission for that region, who will be responsible for distribution within the Commission.

Evaluation at Level 3 will proceed as outlined in the general provisions of this Memorandum.

When the evaluation process conducted by the Commissioner is completed, the Water and Rivers Commission and the landholder will be notified. The Commission will then complete its negotiations in accordance with its policies and guidelines, as contained in Schedule 3(c).

Agreements to reserve

Agriculture Western Australia will, upon request from a landholder or the Water and Rivers Commission, offer to assist in the development of an Agreement to Reserve over a particular area where this Agreement is required under the Policy and Guidelines for the granting of licences to clear used by the Water and Rivers Commission. Specific cost sharing arrangements may be negotiated as appropriate between the Water and Rivers Commissioner.

Schedule 7

ENVIRONMENTAL IMPACT ASSESSMENT

ENVIRONMENTAL IMPACT ASSESSMENT

METHOD FOR ASSESSMENT OF LAND CLEARING PROPOSALS REFERRED BY THE COMMISSIONER FOR SOIL AND LAND CONSERVATION

This document deals with proposals prepared in consultation with relevant agencies and which are likely to be assessed at Consultative Environmental Review level

(The document is a special supplement to EPA Document R104 titled: Preliminary Environmental Definition Study, Scope and Guidelines)

JANUARY 1997

TABLE OF CONTENTS

1. Preamble

1.1 In April 1995 the State Government decided upon a range of strategies for protection of remnant native vegetation on private land in the Agricultural Region of Western Australia. The Environmental Protection Authority (EPA) has been asked to review the evaluation of proposals for land clearing of remnant vegetation on private property, in those areas of the Agricultural Region where clearing is supported by Government decision.

1.2 Hence, this document sets out a process for consultative, expedited environmental impact assessment of clearing proposals referred to the EPA by the Commissioner for Soil and Land Conservation (the Commissioner).

1.3 Pursuant to the Government's strategy a 'memorandum of understanding' between the Commissioner and the EPA will establish the basis for decision making on clearing proposals.

1.4 The Government in April 1995 sought:

(a) • to remove the presumed right of land owners to clear native vegetation in landscapes containing less than 20% of the original vegetation,

• to modify the process for assessing (firstly by the Commissioner)clearing proposals to include consideration of nature conservation, and

• to provide better Government support for remnant vegetation protection and management;

(b) • to require that existing controls on clearing under the Soil and Land Conservation Act and the Country Areas Water Supply Act be augmented by a system to ensure that other natural resource conservation issues are considered before any further clearing occurs on private land; and

(c) • to request that in shires with greater than 20% total remnants of native vegetation the Commissioner for Soil and Land Conservation will decide on the need to inform the Environmental Protection Authority of any land clearing proposals in accordance with an agreed memorandum of understanding.

2 Purpose

2.1 These papers explain the form and content of the documentation required by the EPA for it to undertake an environmental impact assessment and to advise the Minister for the Environment pursuant to the Environmental Protection Act 1986 (the EP Act). Succinct documentation as described hereunder will need to be provided to the EPA:

(a) • at the time a clearing proposal is referred by the Commissioner to the EPA for assessment.

(b) • and, if a decision is made by the EPA to assess formally the proposal because there are environmental factors needing further consideration, or because there is local public interest, that documentation will be placed together (ie combined together in a file for convenience) to comprise a Consultative Environmental Review (subject to appeal) for public consideration. The CER will describe the land clearing proposal, its likely environmental effects, and the means of managing the environmental effects along with commitments for on-going management. (The documentation comprising the CER is set out under point 4.5 below).

2.2 The objective of the process is to provide a swift, collaborative assessment methodology with the proponent accepting prime responsibility, but involving relevant Government agencies, in particular Agriculture WA, in preparation of the documentation. Assessment methodology will follow a set format, and address agreed factors as outlined in the MOU agreed to between the Commissioner and the EPA, with input from relevant agencies.

2.3 Where the acceptability of proposals to clear will be affected by future farm management, the methodology requires development of a 'Farm Plan' prepared as appropriate in accordance with Agriculture WA's guidelines and specifications and incorporating proponent management arrangements. The 'Farm Plan' will be designed in consultation with Agriculture WA, but may be prepared by appropriately qualified consultants or professional persons.

3 Definitions

The following terms are defined to make clear the context in which the terms are used.

Consultative Environmental Review(CER) - (see also Environmental Protection Authority's Administrative Procedures 1993, page 13). "*A level of environmental impact assessment generally used for proposals which are likely to have relatively easily managed environmental impacts and public interest is restricted to the local community and/or special interest groups.* All CER documents prepared by proponents are publicly available, and a public review period of up to four weeks is normally required".

Farm Plan: a plan prepared in accordance with Agriculture WA's guidelines and specifications, and pertaining to the property upon which the land clearing proposal is located. The 'Farm Plan' should contain a map illustrating remnant native vegetation to be protected. The 'Farm Plan' may contain a land owner voluntary 'agreement to reserve' native vegetation which under the Soil and Land Conservation Act will be inscribed as a memorial on the land title to the property. See also point 4.5(c) below.

Proponent: For proposals involving the clearing of native vegetation, the proponent usually will be the 'owner of the land' as defined in the Soil and Land Conservation Act, or a person entitled to lodge the 'notice of intention to clear' under Regulation 4 of that Act. In relation to the Environmental Protection Act the proponent is a person nominated under the Act as being responsible for that proposal.

4 Process (the following sets out the process and the material needing to be provided)

4.1 Proposals, for the clearing of native vegetation from private land, prepared in accordance with the requirements of the Soil and Land Conservation Act and located in shires where at least 20% of native vegetation remains and consistent with the principles of the memorandum of understanding, if a decision is taken by the EPA to assess, will be assessed at Consultative Environmental Review level (subject to appeal, see point 4.4 below).

4.2 An intention of the EPA to assess at CER level assumes that for that proposal there are no easily identifiable significant environmental issues which will need special attention such that a higher level of assessment might be set (subject to appeal, point 4.4 below).

4.3 The Commissioner will refer by letter each proposal to the EPA, accompanied by four documents as discussed in point 4.5. These documents, will be used by the DEP, along with additional information that may be required from the proponent, as the basis of the CER for public consideration.

4.4 The four documents referred from the Commissioner will provide the information upon which the EPA will decide the level of assessment as per section 40 of the EPAct. That decision is subject to appeal under section 100 of the EPAct.

4.5 A CER will take the form as described:

(a) • Document 1 - a transmittal letter of referral of the proposed intention to clear, from the Commissioner to the EPA to accord with section 38 of the EP Act. The referral should be accompanied by documents 2,3 and 4 - as below;

(b) • Document 2 - a 'notice of intention to clear' as required under Regulation 4 of the Soil and Land Conservation Act;

(c) • Document 3 - a report from the Commissioner on the proposal outlining the method of assessment, description of the environment, identification of issues, and evaluation of proposal. This is to be accompanied by all letters and advice as appropriate from the relevant agencies, local government authority or Land Conservation District Committee, combined into one document for completeness.

(d) • Document 4 - if some level of clearing is acceptable to the Commissioner, then any commitments proposed by the proponent to manage, monitor and report on the proposal are to be presented in the form of a draft Agreement to Reserve, or a "Farm Plan" prepared according to Agriculture WA's guidelines and specifications and containing any Agreement to Reserve. This is to incorporate the concerns of relevant agencies, such as CALM and WRC, and include methods proposed to manage environmental issues and monitor performance;

(e) • Document 5 - DEP advice, including the contents set out in Attachment 1, presenting the Department of Environmental Protection's advice to the Environmental Protection Authority. This will be based on the material provided by the Commissioner, and additional information that may be required from the proponent.

4.6 The handling of each CER will follow in generality the context outlined in the EPA's document on Administrative Procedures 1993. The documentation will concisely describe the proposal and the local environment, the environmental effects of the proposal and of the management arrangements to be put in place.

4.7 The CER, although advertised publicly through the EPA's Saturday advertisement in *The West Australian* for submissions, will mostly be of local interest and/or for special interest groups. For this reason the number of copies of the CER will be limited to 50 copies which will be provided by the proponent or produced by DEP and billed to the proponent at cost.

4.8 The EPA will assess a land clearing CER in the light of public submissions through the relevant process set out in the EPA's 'Environmental Impact Assessment - Quality Assurance Scheme'. Specifically, modules R112, R113 and R114 will be followed , although adapted to fit the expedited approach outlined in this document (see point 7 below).

5 Variations

5.1 It may be necessary to vary the form and content of the DEP's advice dependent on the information available from the various sources - proponent, Agriculture WA, other agency/group or the public.

5.2 Any substantial variation will be approved by the EPA.

6 Revision

6.1 This document entitled - 'Method for assessment of land clearing proposals referred by the Commissioner for Soil and Land Conservation' will be subject to amendment from time to time. Approved non substantial changes will be recorded as an Attachment to this document.

7 EPA Assessment and Reporting

7.1 The EPA will evaluate the CER together with submissions from the public in accordance with the assessment procedures set out in the EPA's 'Quality Assurance Procedures for Environmental Impact Assessment, specifically Module No: R112, entitled 'Evaluation Strategy', and will prepare its advice on the proposal to the Minister for the Environment following the process set out in Module No:R113. A report will be published according to Module No: R114.

ATTACHMENT 1

METHOD FOR ASSESSMENT OF LAND CLEARING PROPOSALS REFERRED BY THE COMMISSIONER FOR SOIL AND LAND CONSERVATION

CONTENTS

(to be prepared by the Department of Environmental Protection with advice from Agriculture WA)

***The Department of Environmental Protection's advice will constitute Document 5 of a set of documents comprising a Consultative Environmental Review in relation to a proposal referred to the EPA for assessment by the Commissioner for Soil and Land Conservation.**

The CER will be provided for public consideration

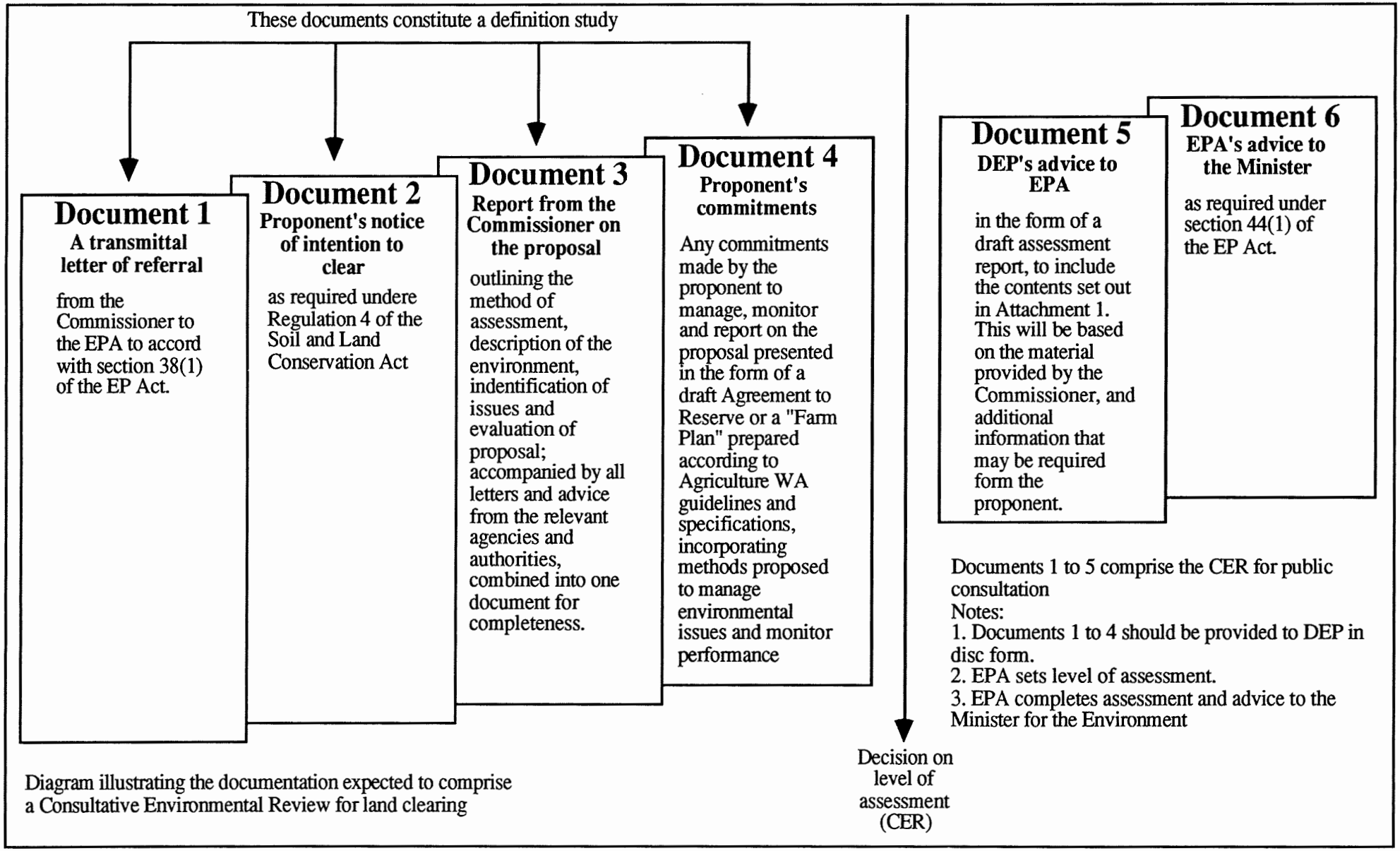


Diagram illustrating the documentation expected to comprise a Consultative Environmental Review for land clearing

METHOD FOR ASSESSMENT OF LAND CLEARING PROPOSALS REFERRED BY THE COMMISSIONER FOR SOIL AND LAND CONSERVATION

CONTENTS

Schedule 8

ADJUSTMENT MEASURES

Many common agricultural practices are now recognised as causing unacceptable levels of land degradation or biodiversity loss. As a result, agricultural industries are moving towards the development and adoption of farming systems that are ecologically sustainable. While sustainability is a responsibility of the whole industry, it is acknowledged that, in the current transition period, some individual landholders will carry more economic pressure than others .

In the operation of arrangements established through this memorandum opportunities will be actively sought to ease economic pressures on landholders whose clearing proposals are not approved. In many instances these will also give greater long term security of purpose, under either public or private ownership, over vegetation being retained because of its hydrological, amenity or biodiversity values. Where appropriate, adjustment measures will be delivered in conjunction with local or regional landcare programs.

In some circumstances it may be possible to arrange purchase of a property, using public or private programs aimed at securing areas of high priority for nature conservation. In other cases it may be possible to arrange private land exchanges to bring a property to viable size without clearing further bushland. There are some programs already in place which may be of value in this. Further adjustment proposals, targeting the highest priority areas, are under development. Existing programs that assist the adjustment process include:

Program and responsible body	Purpose and scale	Benefit to landholder
Remnant Vegetation Protection Scheme	$100,000 from the Remnant Vegetation Protection Scheme will be priority allocated for the specific purpose of fencing areas where the landholder has voluntarily withdrawn a clearing proposal. This could be allocated "as and when" the need arises. Allocations would need to meet the existing criteria to ensure off-site or nature conservation benefits.	A large part of the immediate costs of protecting remnants would be met.
Acquisition by CALM	There are limited funds available for this purpose, and these are targeted at high priority additions to the public conservation estate, assessed on a statewide basis. These are not necessarily areas that have been proposed for clearing.	When these arrangements can be made, the landholder receives market value for the land.
Private purchase There are a range of opportunities, including: • individual purchase for lifestyle purposes. Over much of the wetter parts of the South West remnants are already worth more than cleared land. • group purchases for altruistic purposes, such as through the Australian Bush Heritage Fund.	Funds available will vary depending on the amount of organising effort invested, and the links that can be made between the funds and the needs.	When these arrangements can be made, the landholder receives market value for the land.
Natural Resource Adjustment Scheme	A new scheme to be developed and added to this schedule.	