

# **Clearing of 20ha of land for pasture 16km west of Coolup - Shire of Murray**

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**C Rogers**

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

**Environmental Protection Authority  
Perth, Western Australia  
Bulletin 688  
July 1993**

## THE PURPOSE OF THIS REPORT

This report contains the Environmental Protection Authority's environmental assessment and recommendations to the Minister for the Environment on the environmental acceptability of the proposal.

Immediately following the release of the report there is a 14-day period when anyone may appeal to the Minister against the Environmental Protection Authority's report.

After the appeal period, and determination of any appeals, the Minister consults with the other relevant ministers and agencies and then issues his decision about whether the proposal may or may not proceed. The Minister also announces the legally binding environmental conditions which might apply to any approval.

## APPEALS

If you disagree with any of the contents of the assessment report or recommendations you may appeal in writing to the Minister for the Environment outlining the environmental reasons for your concern and enclosing the appeal fee of \$10.

It is important that you clearly indicate the part of the report you disagree with and the reasons for your concern so that the grounds of your appeal can be properly considered by the Minister for the Environment.

## ADDRESS

Hon Minister for the Environment  
12th Floor, Dumas House  
2 Havelock Street  
WEST PERTH WA 6005

## CLOSING DATE

Your appeal (with the \$10 fee) must reach the Minister's office no later than 5.00 pm on **26 July 1993**

## **Environmental Impact Assessment (EIA)**

### **Process Timelines in weeks**

<b>Date</b>	<b>EIA commences from receipt of full details of proposal by proponent</b>	<b>Time (weeks)</b>
24 March 1993	Proponent Document Released for Public Comment	
21 April 1993	Public Comment Period Closed	4
30 April 1993	Issues Raised During Public Comment Period Summarised by EPA and Forwarded to the Proponent	1
25 May 1993	Proponent response to the issues raised received	4
12 July 1993	EPA reported to the Minister for the Environment	7

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## **Summary and recommendations**

In April 1992 Mr Colin Rogers submitted a Notice of Intention to clear land on Murray location 1473 Coolup under the Soil and Land Conservation Act. The Commissioner of Soil and Land Conservation rejected this application, and applied a Soil and Land Conservation Notice prohibiting the proposed clearing.

Mr Rogers appealed against this decision to the then Minister for Agriculture, who established an appeals committee. Although the appeals committee recommended that the appeal should be upheld, the Minister for Agriculture was advised that a decision by him to uphold the appeal was constrained by Environmental Condition 5 of the Peel Inlet Harvey Estuary Management Strategy, which stated that the moratorium on clearing and drainage of land in the Peel Harvey Coastal Plain Catchment proposed by the Minister for Agriculture as part of that Strategy should remain in force until the Minister for the Environment could be satisfied that these activities would be environmentally acceptable. (see Appendix 1)

The Minister for Agriculture therefore referred Mr Rogers proposal to the Environmental Protection Authority in January 1993, and a level of assessment of Consultative Environmental Review was set. The documentation provided was released for public review for four weeks from 24 March 1993 to 21 April 1993. Submissions were received from 9 individuals and organisations and Government departments. A summary of issues was provided to Mr Rogers on 30 April 1993 ( see Appendix 2) and he responded on 25 May 1993 ( see Appendix 3). As a part of the assessment process, Authority members visited the property, and also had the deliberations of the Appeal Committee at their disposal.

This report, then, is to provide advice to the Minister for the Environment in order that he may advise the Minister for Primary Industry regarding the environmental acceptability of this proposal.

### **The Proposal**

The proposal is to parkland clear about 20 ha of land on Murray Location 1473. This location comprises some 119 ha of which about 25 ha has already been cleared, with a further 20 ha which has been partially cleared. The proposal is based upon a farm development plan prepared by the proponent in consultation with the Department of Agriculture which identified areas proposed for clearing as well as areas proposed for permanent retention of native vegetation.

### **Environmental issues**

The principal environmental issue with regard to this proposal to parkland clear 20 hectares of previously logged bushland for pasture is the impact of phosphorus on the Peel Harvey Catchment. The Estuary shows signs of severe eutrophication (massive accumulation of algae which grow in the water, then die and putrefy, gathering along the shores of the estuary). It is caused by an inflow of nutrients (of which phosphorus is regarded as critical to the eutrophication process) from the coastal catchment. The nutrient inflow is currently far above the Estuary's ability to cope. For this reason, the Government has taken a number of specific actions to redress this situation. The proposals for the Peel Inlet Harvey Estuary Management Strategy included setting in place a moratorium on any further clearing or drainage within the coastal plain catchment. Environmental Conditions set on the strategy require that this moratorium should remain until the Minister for the Environment is satisfied that proposals to clear or drain are environmentally acceptable. The purpose of this review is to provide the Environmental Protection Authority's advice to the Minister with regard to the environmental acceptability of the proposed clearing.

Although the issue of nutrient export is the one of greatest concern, the issues of potential soil degradation and the importance of the remaining vegetation on the property in an area where considerable clearing has already taken place also require consideration. In this context it should

be noted that soil degradation was not considered to be a major factor on Lot 1473, however concerns were expressed about the protection of that vegetation which it was intended to retain.

The Appeal Committee to the Minister for Agriculture considered two principal grounds of appeal. Firstly that the proposed clearing would not result in increased nutrient export to the Peel-Harvey Estuarine system, and secondly, that the fencing requirement of the existing Soil Conservation Notice was not reasonable. These matters have been taken into account in this report.

With regard to the nutrient export, Authority members were of the view that there was a low probability that there would be a significant increase in phosphorus export to the estuary. However the objective should be to prevent any increase, and if possible, reduce any nutrient export from the site. In considering this matters, the Authority was of the opinion that vegetated buffers should be retained around creek and drainage lines, lock systems as proposed be implemented and maintained, and that the re-vegetation previously proposed by the proponent in the cleared part of the paddock near the sump where a salinity problem had begun to be manifest should be carried out. All these measures were included in the listing of land clearing practice proposed to the Appeal Committee. Additional measures which should be undertaken include a monitoring of fertiliser management including soil testing to reduce any potential for nutrient export. This should be carried out by the proponent to the satisfaction of the Western Australian Department of Agriculture.

Accordingly, the Environmental Protection Authority is of the view that this proposal to parkland clear 20 ha of bushland for pasture leaving large trees intact, is environmentally acceptable but should only proceed if environmental safeguards are undertaken.

### **Recommendation 1**

**The Environmental Protection Authority concludes that the parkland clearing of 20 ha of land for pasture on Lot 1473, Shire of Murray, in the Peel-Harvey Coastal Plain Catchment is environmentally acceptable subject to its recommendations in this report. The proposal should only proceed if those safeguards contained in this report are undertaken.**

**In reaching this conclusion the Authority identified the main environmental issue as being the export or potential export of phosphorus to the Peel Inlet Harvey Estuary Management System. There is a need to be conservative until a new assimilative capacity is determined, and the effects of the management elements have been measured or are being managed.**

The Authority considered that there are four measures needed to prevent additional nutrient export, to reduce current levels in accordance with the intentions of the moratorium, and to protect good stands of remaining vegetation. These are that vegetation on the northern boundary be maintained in order to impede surface flows which may contain phosphorus. Further, that the area of remaining vegetation which is not to be cleared, should be fenced in order to protect it. The existing farm plan may need some revision in order to make the fencing more practicable and financially less onerous. The area of vegetation to be retained also should be protected through the issuance of a Soil Conservation Notice and the placing of a memorial on the title. Accordingly, the Authority recommends:

### **Recommendation 2**

**The Environmental Protection Authority recommends that:**

- (a) existing vegetation on the northern boundary, which is important as a sink for phosphorus which could otherwise be exported through surface or groundwater, be retained and protected;**
- (b) vegetation in the central ridge, which under this proposal it is not intended to clear, be adequately protected;**

(c) vegetation which is not to be cleared should be fenced to keep stock out. In order to achieve this a revised farm plan should be drawn up by the proponent to the satisfaction of the Pinjarra Community Catchment Centre to allow fencing to be carried out of key areas; and

(d) the vegetation which it is proposed to retain should be protected with a Soil Conservation Notice and the placing of a memorial on the title in accordance with procedures under the Soil and Land Conservation Act.

# 1. Foreword

The Peel-Harvey estuarine system is badly degraded resulting in a significant reduction in the recreational, environmental, social and economic values of the area. By comparison, similar problems in the Murray-Darling basin have now become so severe that there is concern as to whether that system is retrievable.

The cause of the eutrophication is an inflow of nutrients ( of which phosphorus is regarded as critical to the eutrophication process) from the coastal plain catchment into the Estuary. The nutrient inflow is currently far above the Estuary's ability to cope

The primary source of the nutrients is agricultural runoff from sandy soils of the catchment which have been extensively cleared and drained. In addition, grazing in combination with phosphorus fertilisers have a detrimental effect on many species of native vegetation, and the loss of trees which results on partially cleared land, again reduces the capacity of the largely sandy soils to retain applied nutrients.

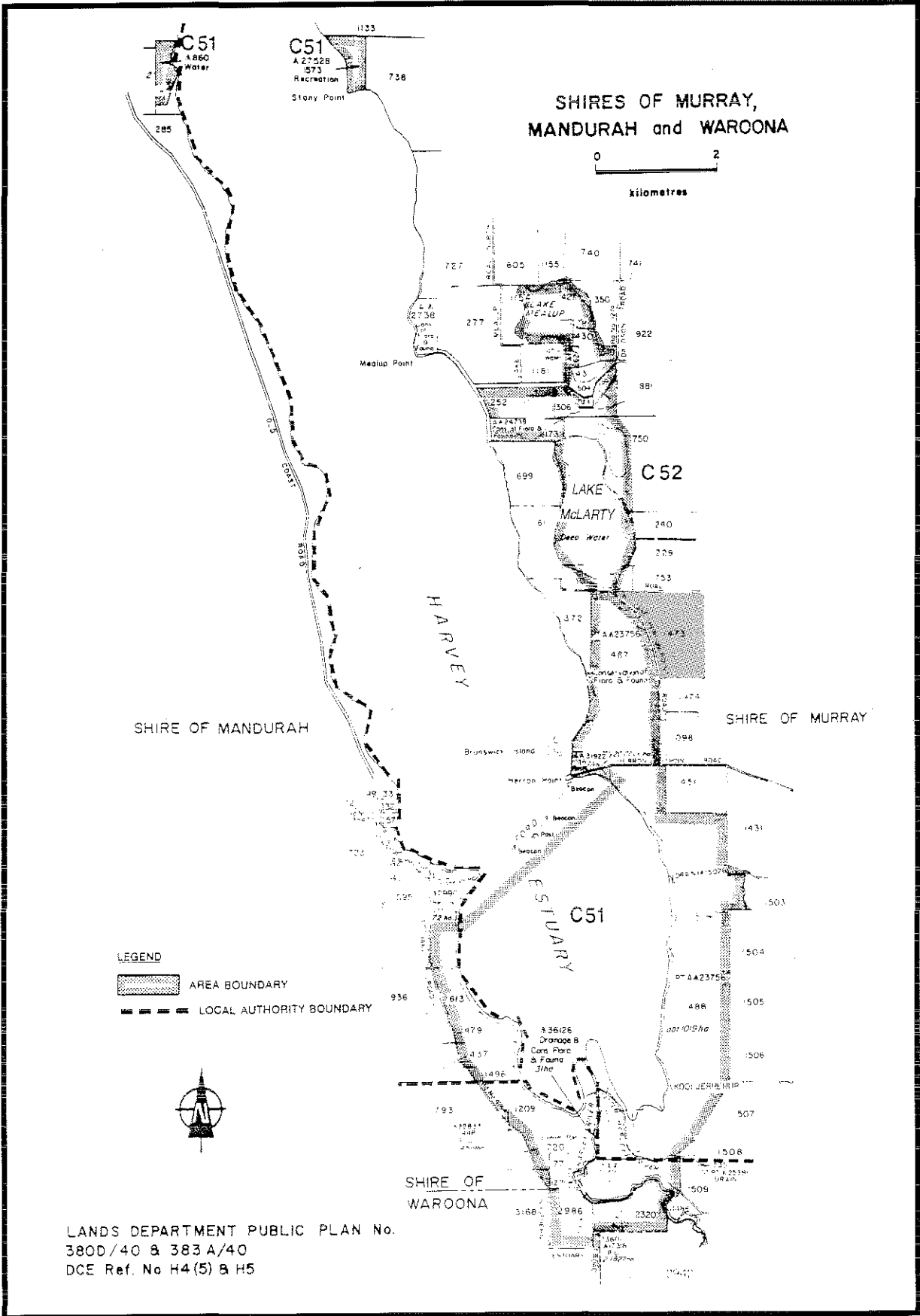
Some years ago the Government embarked on a rescue programme for the Estuary, the importance of which has been more recently highlighted by the Murray-Darling example where algal blooms have rendered river water dangerous to human life and stock in some instances. The plan to rescue the Peel-Harvey Estuary has two essential elements. The first is the construction of the Dawesville Channel to improve the flushing in the Estuary. The other part of the plan is to control those activities in the catchment which contribute to additional nutrients entering the Estuary.

Owners of existing broadacre agricultural holdings have, by and large, accepted the recommended constraints by making a significant reduction in the rates of phosphorus fertilisers applied to their properties, and by planting a large number of trees.

It is in this context that the present proposal to parkland clear 20 ha of land on Murray Location 1473 needs to be assessed.

## 2. Introduction

In January 1993 the Minister for Agriculture referred to the Environmental Protection Authority a proposal to clear 20 hectares of land in the Peel-Harvey Coastal Plain Catchment area. The land is in the Shire of Murray, is adjacent to Conservation Reserve 23756, and in close proximity to Lake McLarty, both of which form part of Redbook Recommendation C52. (see Map 1). The proponent, Mr Colin Rogers, wishes to clear the land for fertilised pasture. It is his stated intention to retain large trees and clear only undergrowth. Further, vegetation buffers would be retained around all drainage lines, and a locking system be employed to minimise water and nutrient flows. Commitments made by Mr Rogers are included at Appendix 4.



*Map 1: Map showing Murray Location 1473 (in relation to System 6 Recommendation C52)*



### **3. Background**

Mr Rogers filed a Notice of Intention to Clear the land on Location 1473, Coolup, in April 1992, however the Commissioner of Soil Conservation rejected the application, and applied a Soil Conservation Notice.

Mr Rogers appealed against this notice under the provisions of the Soil and Land Conservation Act. Accordingly the Minister for Agriculture established an appeals committee which sought to uphold the appeal. However, the Minister for Agriculture was constrained from upholding the appeal because of the moratorium on clearing and drainage for agriculture within the catchment area until the Minister for the Environment is satisfied that this would be environmentally acceptable. This moratorium forms a part of the Environmental conditions set on Stage 2 of the Peel Inlet Harvey Estuary Management Strategy. The matter therefore came before the Environmental Protection Authority.

The proposal is to parkland clear about 20 ha of land on Murray Location 1473. This location comprises some 119 ha of which about 25 ha has already been cleared, with a further 20 ha which has been partially cleared. The proposal is based upon a farm development plan prepared by the proponent in consultation with the Department of Agriculture which identified areas proposed for clearing as well as areas proposed for permanent retention of native vegetation.

### **4. Environmental issues**

The principal environmental issue of concern relates to the fact that the capacity of the estuary to absorb nutrients, especially phosphorus, without detrimental effects such as algal blooms has been grossly exceeded. Consequently the Authority considers that any net increase in phosphorus to the estuarine system is environmentally unacceptable.

It is the considered view of the Environmental Protection Authority, as it was of the appeal committee, that this proposal will not substantially increase export of nutrients to the estuarine system, provided that proper management is employed to reduce the amount of phosphorus which may be exported from the property.

The proposal to use a lock system on the existing drain to Lake McLarty in the north may reduce surface drainage nutrient outflow. Although there are the possibilities that an effective dam would cause flooding back onto neighbouring properties, it is considered unlikely to result in nutrient export if adequate vegetation is maintained on the northern boundary and around the drainage lines to act as a sink for the phosphorus. It is also considered unlikely that there would be substantial groundwater outflows which would enter Lake McLarty. Groundwater outflows to Lake McLarty are said to contribute only a small percentage of nutrients to the estuary itself.

Although the proposal to clear for pasture has indicated that no more fertiliser will be applied than previously, the clearing of itself, will increase runoff, reducing the potential for retention of water and nutrients on-site. As this could therefore increase the outflow of nutrients, it is essential that vegetation be retained and protected on the northern boundary, and the central ridge, to overcome this possibility.

## **5. Conclusion and Recommendation**

Although additional clearing on Lot 1473 will increase the likelihood of both raising the water table, and facilitating the transport of nutrients, it is the view of the Environmental Protection Authority that the proposal to parkland clear 20 ha may be environmentally acceptable if appropriate safeguards are employed. It is essential that a conservative approach to management be maintained, and that the overall moratorium on clearing and drainage be upheld unless it can be demonstrated that there will not be a negative effect on the estuarine system. Accordingly, the Authority recommends:

### **Recommendation 1**

**The Environmental Protection Authority concludes that the parkland clearing of 20 ha of land for pasture on Lot 1473, Shire of Murray, in the Peel-Harvey Coastal Plain Catchment is environmentally acceptable subject to its recommendations in this report. The proposal should only proceed if those safeguards contained in this report are undertaken.**

**In reaching this conclusion the Authority identified the main environmental issue as being the export or potential export of phosphorus to the Peel Inlet Harvey Estuary Management System. There is a need to be conservative until a new assimilative capacity is determined, and the effects of the management elements have been measured or are being managed.**

### **Recommendation 2**

**The Environmental Protection Authority recommends that:**

- (a) existing vegetation on the northern boundary, which is important as a sink for phosphorus which could otherwise be exported through surface or groundwater, be retained and protected;**
- (b) vegetation in the central ridge, which under this proposal it is not intended to clear, be adequately protected;**
- (c) vegetation which is not to be cleared should be fenced to keep stock out. In order to achieve this a new farm plan should be drawn up by the proponent to the satisfaction of the Pinjarra Community Catchment Centre to enable a satisfactory rationalisation of cleared and uncleared areas, and to allow fencing to be carried out; and**
- (d) the vegetation which it is proposed to retain should be protected with a Soil Conservation Notice and the placing of a memorial on the title in accordance with procedures under the Soil and Land Conservation Act.**

# **Appendix 1**

## **Peel Inlet-Harvey Estuary Management Strategy**



## MINISTER FOR ENVIRONMENT

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

#### PEEL INLET-HARVEY ESTUARY MANAGEMENT STRATEGY - STAGE 2

MINISTER FOR TRANSPORT  
MINISTER FOR AGRICULTURE  
MINISTER FOR WATERWAYS

This proposal may be implemented subject to the following conditions:

1. The proponents shall adhere to the proposal as assessed by the Environmental Protection Authority and shall fulfil the commitments made and listed in Appendix 2 of Environmental Protection Authority Bulletin 363, as amended (copy of commitments attached).
2. The proponents shall develop proposals for control of phosphorus through catchment management, to the satisfaction of the Environmental Protection Authority, and shall implement them as rapidly as possible so that, in conjunction with the Dawesville Channel, the following objective is met:

. the Peel-Harvey System becomes clean, healthy and resilient.

To achieve this objective, the following interim targets should be used:

- (1) annual phosphorus input to the system shall not exceed 85 tonnes in more than four years out of ten (on average) and shall not exceed 165 tonnes in more than one year out of ten (on average). [These are based on 60 and 90 percentile loads]; and
- (2) average phosphorus concentration in estuary water shall not exceed 0.2 milligrams per litre in nine years out of ten (on average).

Published on

4 JAN 1989

These target figures shall be reviewed by the Environmental Protection Authority after 3 years or sooner if environmental conditions dictate, in the light of measured performance of the System and may subsequently be varied by the Environmental Protection Authority.

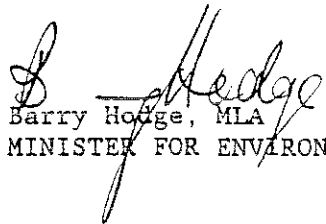
3. The proponents shall jointly prepare an Environmental Protection Policy for the Peel-Harvey catchment in consultation with such persons and agencies as Government may specify, to the satisfaction of the Environmental Protection Authority, in accordance with the objective and targets specified in Condition 2 above. The target date for the Draft Policy (under Section 26 of the Environmental Protection Act 1986) is 31 December 1989.
4. The proponents shall develop in consultation with such persons and agencies as Government may specify, an integrated catchment management plan designed to meet the objective and targets specified in Condition 2 above, to the satisfaction of the Environmental Protection Authority, and which shall be in accordance with the principles to be developed in the Environmental Protection Policy for the area pursuant to Condition 3. The target date for the implementation of the integrated catchment management plan shall be 31 December 1990.
5. The proponents shall ensure that the moratorium on clearing and drainage in the Peel-Harvey coastal plain catchment proposed in the Stage 2 Environmental Review and Management Programme (Commitment 3.6) continues until the Minister for Environment is satisfied that these activities would be environmentally acceptable.
6. Relevant decision-making authorities shall ensure that all developments within 2 kilometres of the Peel-Harvey Estuary System (as defined in the Estuarine and Marine Advisory Committee Report to the Environmental Protection Authority, Department of Conservation and Environment Bulletin 88, March 1981.) include appropriate nutrient-attenuating waste disposal systems and management practices, to the satisfaction of the Environmental Protection Authority.
7. Prior to construction, a dredging and spoil disposal management plan for the Dawesville Channel shall be prepared by the proponents, to the satisfaction of the Environmental Protection Authority. Dredging not already forming part of the proposals in the Stage 2 Environmental Review and Management Programme shall be the subject of separate assessment by the Environmental Protection Authority.
8. The proponents shall ensure that weed harvesting and control is continued and increased as necessary to manage the expected initial increase in the occurrence of nuisance macroalgae.

9. Decisions on developments which may release phosphorus or nitrogen to the environment in the Peel-Harvey Estuary area and coastal plain catchment area should be conservative until the new assimilative capacity of the Peel-Harvey Estuary System is determined and the effects of the management elements have been measured or are being managed. To this end, such proposals for development in these areas shall be referred to the Environmental Protection Authority for assessment. These developments include new and expansion of existing intensive horticultural and intensive animal industries.
10. The Peel-Harvey regional park concept, as originally proposed in the System 6 Redbook report (Conservation Reserves for Western Australia: The Darling System - System 6, Department of Conservation and Environment Report 13, Parts I and II, October 1983.) shall be implemented within such time as to be determined by the Minister for Environment.
11. If the Dawesville Channel is constructed, the proponents shall be responsible for ensuring that mosquito management is effective and is carried out in an environmentally acceptable manner, to the satisfaction of the Minister for Environment and the Minister for Health.
12. The proponents shall be jointly responsible for the environmental aspects of:
  - (1) the construction, operation, monitoring and maintenance of the Dawesville Channel and its impacts within the estuaries and within the immediate marine environment;
  - (2) the management and required monitoring of the catchment, and collection of data necessary for the development of the integrated catchment management plan for the Peel-Harvey catchment; and
  - (3) all in-estuary monitoring and management, including weed harvesting.

All of the above shall be carried out to the satisfaction of the Environmental Protection Authority.

13. Prior to the construction of the Dawesville Channel, the proponents shall prepare in stages, a monitoring and management programme, to the satisfaction of the Environmental Protection Authority. This programme shall include:
  - (1) essential additional baseline monitoring required to be in place as soon as possible and prior to construction commencing;

- (2) construction stage impacts and monitoring, prior to construction; and
- (3) operational and long-term monitoring, in stages, to be determined by the Environmental Protection Authority.

  
Barry Hodge, MLA  
MINISTER FOR ENVIRONMENT

- 3 JAN 1989

## MANAGEMENT COMMITMENTS MADE BY THE PROPONENTS

The following list has been amended by the EPA and accepted by the proponents to reflect the 'whole of Government approach' which is essential for management of this proposal.

### 1. DAWESVILLE CHANNEL

- 1.1 The proponents will conduct a detailed survey to locate, assess and offer protection to Aboriginal sites and heritage.
- 1.2 During construction of the Dawesville Channel, the proponents will ensure the continuity of road access, power supply, communications, and water and sewerage services that require relocation, and will minimize dust and noise impacts upon nearby residential areas.
- 1.3 Spoil from the excavated channel will be used in redeveloping the fill areas as a stable and varied landscape, reflecting naturally occurring topography elsewhere on the coastal strip.
- 1.4 The proponents will manage spoil disposal to minimize disturbance to important land elements, including coastal dunes, tree belts along Old Coast Road and near the estuary foreshore. Spoil disposed of adjacent to the undisturbed coastal dunes will be contoured to co-ordinate with natural dune topography in order to minimize the potential for erosion.
- 1.5 The land area used to dispose of excavated material will be contoured to facilitate possible future development into a prime residential and holiday area. Views from existing residences near the estuary will be retained, taking into consideration that these views may have been ultimately reduced by foreshore development and landscaping, irrespective of the proposed channel development.
- 1.6 Littoral sand drift northwards along the ocean coast will be mechanically bypassed beyond the channel entrance, to minimize siltation within the channel and to avoid adverse effects on beaches to the north and south.
- 1.7 The Dawesville Channel will be maintained as a navigable waterway, although, as with the existing Mandurah Channel, sea conditions at the ocean entrance may frequently preclude its use by small boats.
- 1.8 The estuary will be closely monitored to evaluate the management strategy's success in reducing the algal nuisance and to enable the development of appropriate management strategies to mitigate any deleterious effects that may occur. Current and proposed future monitoring studies in the estuary are described in Section 13 of the ERMP and Section 11 of the EPA assessment report.

### 2. CONTROL OF WEED ACCUMULATIONS

- 2.1 Weed harvesting will be continued most likely at an increased rate, until the weed nuisance in the estuary is successfully reduced.
- 2.2 Possible methods of improving the efficiency of harvesting operations, and the possible use of algicides to control weed growth, will be evaluated by the proponents and implemented if shown to be practicable.



2.3 The Peel Inlet Management Authority will continue the existing programme of shoreline management and will rehabilitate areas where weed accumulations or harvesting operations cause excessive retreat of the shoreline.

### 3. CATCHMENT MANAGEMENT

3.1 The proponents will continue to provide advice to farmers on fertilizer requirements, based on accurate assessment by paddock-specific soil tests.

3.2 The proponents will encourage further development and use of individual-nutrient fertilizers, and will undertake detailed investigations of ways to overcome existing economic constraints to their production and use.

3.3 The proponents will ensure that large-scale field trials are carried out to ascertain the technical and economic feasibility of converting use of sandy soils from agriculture to forestry. Private enterprise involvement in these studies will be encouraged.

3.4 The EPA and the Department of Agriculture will continue to provide advice to producers to define and implement practicable and cost-effective waste management strategies for control of point sources of phosphorus.

3.5 The Department of Agriculture will coordinate the preparation and implementation of a detailed catchment management plan aimed at reducing phosphorus losses to the estuary to less than 85 t/a in a 60 percentile year with minimal economic or social disruption to the catchment community.

3.6 The proponents will implement a moratorium on further clearing and drainage in the catchment, pending determination of the success of the catchment management plan in reducing phosphorus losses from existing cleared land.

3.7 The success of catchment management measures in reducing phosphorus losses to the estuary will be monitored by the proponents and audited by the EPA. The social and economic effects of catchment management measures upon the catchment community will be closely monitored by the proponents. Current and proposed future monitoring studies are described in Section 13 of the ERMP and in Section 11 of the EPA assessment report. The catchment management plan will be regularly reviewed by the EPA.

## **Appendix 2**

### **Environmental issues raised in submissions**

Mr Colin Rogers  
Box 165  
Pinjarra WA 6208

41/85/5  
Helen Allison  
Katrin Wilson

Dear Mr Rogers

**CLEARING OF 20 HA OF LAND FOR PASTURE 16 KM WEST OF COOLUP, SHIRE OF MURRAY ( 778)**

Further to previous discussions on issues raised during the public submission period, please find attached a list of issues for your response.

A copy of these issues and your responses will be appendicised in the Environmental Protection Authority's assessment report. The Authority will, if necessary, include specific comments on issues with potential environmental impacts which are not adequately covered by your response.

Under the Environmental Protection Act 1986, the Authority's report is subject to a 14 day appeal period. During this period the public may appeal the Authority's Report and Recommendations. An incomplete answer to any of the attached questions could cause the public to appeal and this would delay the setting of Ministerial conditions. Accordingly, please ensure that you give a full and reasoned answer to each question.

The general issues of concern in the submissions include:

- 1. There has been insufficient information presented in the CER document to allow an adequate analysis of the environmental issues and their proposed management.**
- 2. The issue of export of nutrients into the Peel-Harvey Estuary and the proposed management strategies to prevent this have not been adequately addressed.**
- 3. The proposal has not been put into a regional catchment context. This means that the issues have only been dealt with on Murray Lot 1473, and the effects of the clearing of this land on the rest of the Peel Harvey Catchment area have not been explored.**
- 4. As there is only 10.3% remaining native vegetation on private land within the Shire of Murray, clearing this stand of marri/sheoak/banksia is likely to have significant environmental effects in terms of loss of**

**biodiversity/representation of regional flora. Will clearing this land mean that some plant species will no longer be found in the area? This issue has not been addressed.**

**5. Clearing the land will lead to loss of habitat for native fauna. The vegetation proposed to be cleared provides a valuable wildlife corridor and should remain.**

**6 There is concern that clearing the land will increase the risk of salination of the land.**

**7. Insufficient information has been given on the risk of dieback spreading into the reserve through clearing. What information is available on the dieback disease on the property and on its spread?**

**8. Parkland clearing and fertilisation may cause medium and long term deaths of some trees.**

**9. The remaining vegetation should be fenced and stock kept out of the area. In particular, areas of re-growth should be protected from grazing stock.**

**10. No consideration has been given to alternatives to clearing the land.**

•The Authority considers that a more detailed evaluation of potential environmental impacts is required, as well as more detailed management plans for their amelioration

Some of the submissions received supported the farm plan prepared through discussions between the Community Catchment Centre and yourself. However, some submitters indicated that they would prefer that the Estuary and Lake McLarty were protected from further degradation and that the adjacent Reserve, and as much native vegetation as possible should be retained.. Some suggestions included vegetating the eastern and southern boundaries, and fencing vegetated areas partially to compensate for the proposed clearing.

The Authority looks forward to an early response so that it can finalise its assessment.

Should you have any queries about the attached questions, please contact Helen Allison or Katrin Wilson on 222 7048 or 2227019.

Yours sincerely

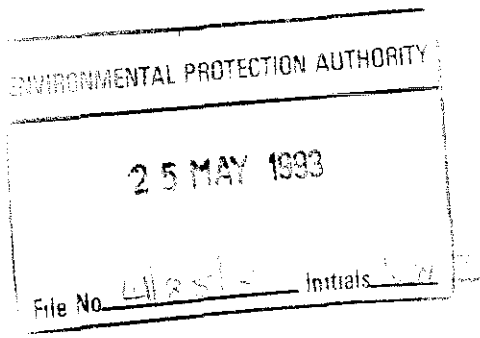
R A D Sippe  
DIRECTOR  
EVALUATION DIVISION

28 April 1993

rogersissues280493kwi

# **Appendix 3**

## **Response to issues**



Katrin Wilson  
Environmental Protection Authority  
141 St Georges Terrace  
Perth W.A. 6000

24 May 1993

Dear Ms Wilson,

CLEARING OF PORTION LOT 1473 - COOLUP

My response to the issues of concern raised from the public submissions are as follows:

1. The CER and its content has been prepared based on the advice of EPA project officers experienced with the environmental issues associated with the project. Information included in the CER includes a discussion on land degradation and the export of surface waters containing nutrients to the Harvey Estuary. These are considered the major relevant environmental issues associated with the clearing of location 1473. Specific management prescriptions dealing with catchment management and nutrient retention to minimise adverse water quality effects to the Harvey Estuary are included in the submission.
2. Drainage of surface waters from Location 1473 occurs via a main drain from the property entering Lake McLarty. Lake McLarty does not presently experience algae blooms. Another drainage line enters Koljaneerup Reserve. No drainage waters from the property are discharged to the Harvey Estuary. Advice provided by Mr Ross George (West Australian Department of Agriculture, South Perth) addressing the issues of land degradation and nutrient movement to the Harvey Estuary considers that the transfer of nutrients through groundwater flowing from Lake McLarty to the Harvey Estuary is Minimal.

In relation to nutrient management specific matters have been proposed to reduce nutrient levels within collected surface waters. A dam located in the north east of Location 1473 collects runoff from neighboring properties. A loch system to be installed across the dam will aid water retention allowing the majority of sediment contained within drainage waters to settle out, thereby reducing a majority of the nutrient loading to Lake McLarty. Additionally a vegetated belt surrounding the dam will assist with nutrient assimilation. Similarly another loch system has been proposed for the southern cleared portion of the land, to control nutrient flow.

3. Meetings have been held with the responsible regional catchment management authority to discuss the proposal in the context of the Harvey catchment.
4. The site has been fertilised and stocked in the past.
5. One third of the Shire of Murray is within State Forest, that is actively managed for timber harvesting, and the conservation of native vegetation. The objective of Conservation Reserves set aside by Government is to ensure the biodiversity/representation of regional flora is maintained. This is not the responsibility of private land. Additionally vegetation represent-

-ative of the area can be found in Koljaneerup Reserve.

6. A wide firebreak occurs along the north and western boundaries of the property effectively isolating the Conservation Reserve 23756 and other vegetated areas from the vegetation occurring on Location 1473. As the surrounding land to the Reserve has been extensively cleared no green corridors occur linking the Reserve to other habitats. The argument that clearing the vegetation on Location 1473 would result in the loss of a valuable wildlife corridor is not valid as only portions of the central core of the property will be cleared. The outer fringe of vegetation closest to the Reserve will be maintained. I propose to maintain a wildlife corridor varying between 50 - 100 metres adjacent to the Reserve.
7. To my knowledge, there is no salt affected land within the Shire of Murray caused by clearing.
8. The Reserve on the western side of Location 1473 is very badly infected with die back and no attempt is being made to control the disease at this stage. Verification of this can be obtained by contacting CALM at Dwellingup.
9. This will be evaluated during stocking of the property and should any detrimental effects occur measures such as fencing or other protection methods would be introduced.
10. Experience from previously stocking the property has indicated that stock are prevented from entering the regrowth areas due to its density.
11. Alternatives to clearing of the land would include compensation payable to the owner equivalent to the lands market value.



C.J. Rogers.

**Appendix 4**  
**Recommended Environmental Conditions**



**Based on its assessment of this proposal and recommendations in this report, the Environmental Protection Authority considers that the following Recommended Environmental Conditions are appropriate.**

**1 Proponent Commitments**

The proponent has made a number of environmental management commitments in order to protect the environment.

- 1-1 In implementing the proposal, the proponent shall fulfil the commitments (which are not inconsistent with the conditions or procedures contained in this statement) made in the Consultative Environmental Review and in response to issues raised following public submissions. These commitments are consolidated in Environmental Protection Authority Bulletin 688 as Attachment A (A copy of the commitments is attached.)

**2 Implementation**

Changes to the proposal which are not substantial may be carried out with the approval of the Minister for the Environment.

- 2-1 Subject to these conditions, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal. Where, in the course of that detailed implementation, the proponent seeks to change those designs, specifications, plans or other technical material in any way that the Minister for the Environment determines on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

**3 Retention of Vegetation**

- 3-1 The proponent shall retain existing vegetation buffers on the northern and western boundaries of the property to existing widths.
- 3-2 The proponent shall retain remnant vegetation on that central ridge portion of the property which it is not proposed to clear, to the requirements of the Western Australian Department of Agriculture.

**4 Fencing**

- 4-1 The proponent shall fence retained vegetation on the north and central parts of the property to the requirements of the Pinjarra Community Catchment Centre.

**5 Proponent**

These conditions legally apply to the nominated proponent.

- 5-1 No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.

## **6 Time Limit on Approval**

The environmental approval for the proposal is limited.

- 6-1 If the proponent has not substantially commenced the project within five years of the date of this statement, then the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment shall determine any question as to whether the project has been substantially commenced. Any application to extend the period of five years referred to in this condition shall be made before the expiration of that period, to the Minister for the Environment by way of a request for a change in the condition under Section 46 of the Environmental Protection Act. (On expiration of the five year period, further consideration of the proposal can only occur following a new referral to the Environmental Protection Authority.)

## **7 Compliance Auditing**

In order to ensure that environmental conditions and commitments are met, an audit system is required.

- 7-1 The proponent shall prepare periodic "Progress and Compliance Reports", to help verify the environmental performance of this project, in consultation with the Environmental Protection Authority.

### **Procedure**

- 1 The Environmental Protection Authority is responsible for verifying compliance with the conditions contained in this statement, with the exception of conditions stating that the proponent shall meet the requirements of either the Minister for the Environment or any other government agency.
- 2 If the Environmental Protection Authority, other government agency or proponent is in dispute concerning compliance with the conditions contained in this statement, that dispute will be determined by the Minister for the Environment.
- 3 The Commissioner of Soil and Land Conservation will protect the vegetation which it is proposed to retain with a Soil and Land Conservation Notice and the placing of a memorial on the title in accordance with the procedures of the Soil and Land Conservation Act.

## **Appendix 5**

### **Proponent's commitments**

## **Commitments made in CER and Response to Submissions**

1. I am not intending to change the land use, merely removing immature growth.
2. The land will be fertilised with super each year to the same extent as it has in the past.
3. Shelter belts will be retained for shelter and also nutrient uptake
4. Cattle numbers will be maintained at acceptable levels and with fencing and management as requested, I see no reason for degeneration of the shelter belt.

5. Loching (*sic*) of the drains will ensure that drainage will be internalised in winter preventing water and nutrients moving from the land.

In relation to nutrient management specific matters have been proposed to reduce nutrient levels within collected surface waters. A dam located in the north east of Location 1473 collects runoff from neighbouring properties. A loch system to be installed across the dam will aid water retention allowing the majority of sediment contained within the drainage waters to settle out, thereby reducing a majority of the nutrient loading to Lake McLarty. Additionally a vegetated belt surrounding the dam will assist with nutrient assimilation. Similarly another loch system has been proposed for the southern cleared portion of the land, to control nutrient flow.

6. The outer fringe of vegetation closest to the Reserve will be maintained. I propose to maintain a wildlife corridor varying between 50 - 100 metres adjacent to the Reserve.

## **Intended Clearing Practice as outlined to the Appeal Committee**

1. Parkland clear leaving sizeable clumps of large vegetation and understorey.
2. To leave all large timber and only remove undergrowth to allow the movement of a fertiliser spreader through the vegetation
3. To leave a 15 meter buffer around all drainage lines.
4. To leave wet areas (NW corner) and weaker sand areas fully vegetated.
5. To install a loch (*sic*) system to control water and nutrient flow from neighbouring properties.
6. To fence a small area in the cleared part of the paddock and plant trees to control surface salt which was appearing due to evaporation.
7. Leave a wildlife corridor adjacent to the reserve of between 50-100 metres.
8. To fence the paddock such that sufficient uncleared vegetation was in each of three paddocks to protect the land from any north-west wind.