



Statement No.

000553

MINISTER FOR THE ENVIRONMENT;  
LABOUR RELATIONS

STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL  
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE  
ENVIRONMENTAL PROTECTION ACT 1986)

WIDESPREAD USE OF BAUXITE RESIDUE  
PEEL-HARVEY COASTAL PLAIN CATCHMENT

**Proposal:** The widespread distribution and use of bauxite residue from Alcoa of Australia's Kwinana, Pinjarra and Wagerup refineries for the purpose of soil amendment for the currently approved land use activities on the Swan Coastal Plain portion of the catchment of the Peel Inlet and Harvey Estuary. This area is defined in schedule 1.

The proposal involves the arrangements for distribution, the loading and the transport of the material from the refineries, and the application of the material on individual landowners' properties.

**Proponent:** Agriculture Western Australia

**Proponent Address:** Baron Hay Court, South Perth WA 6151

**Assessment Number:** 1266

**Previous Assessment Number:** 766

**Previous Statement Number** Statement No. 339 published on 4 February 1994

**Report of the Environmental Protection Authority:** Bulletin 982

**Previous Report of the Environmental Protection Authority:** Bulletin 714

The implementation of the proposal to which the above reports of the Environmental Protection Authority relate is now subject to the following conditions and procedures which replace all previous conditions and procedures:

*Procedures*

**1 Implementation**

1-1 Subject to these conditions and procedures, the proponent shall implement the proposal as described above (see 'Proposal').

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1-2 Where the proponent seeks to change any aspect of the proposal as documented in this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.

1-3 Where the proponent seeks to change any aspect of the proposal as documented in this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

## **2 Proponent Commitments**

2-1 The proponent shall implement the consolidated environmental management commitments documented in schedule 2 of this statement.

2-2 The proponent shall implement subsequent environmental management commitments which the proponent makes or has made as part of the fulfilment of conditions and procedures in this and any previous statement issued for this proposal.

## **3 Proponent**

3-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the Environmental Protection Act 1986 is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person in respect of the proposal.

3-2 Any request for the exercise of that power of the Minister referred to in condition 3-1 shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the proposal in accordance with the conditions and procedures set out in the statement.

3-3 The proponent shall notify the Department of Environmental Protection of any change of proponent contact name and address within 30 days of such change.

## **4 Commencement**

4-1 The proponent shall provide evidence to the Minister for the Environment within five years of the date of this statement that the proposal has been substantially commenced.

4-2 Where the proposal has not been substantially commenced within five years of the date of this statement, the approval to implement the proposal as granted in Statement No. 339 (4 February 1994) shall lapse and be void. The Minister for the Environment will determine any question as to whether the proposal has been substantially commenced.

4-3 The proponent shall make application to the Minister for the Environment for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement at least six months prior to the expiration of the five year period referred to in conditions 4-1 and 4-2.

4-4 Where the proponent demonstrates to the requirements of the Minister for the Environment on advice of the Department of Environmental Protection that the environmental parameters of the proposal have not changed significantly, then the Minister may grant an extension not exceeding five years for the substantial commencement of the proposal.

## **5 Compliance Auditing**

- 5-1 The proponent shall submit periodic Compliance Reports, in accordance with an audit program prepared in consultation between the proponent and the Department of Environmental Protection.
- 5-2 Unless otherwise specified, the Chief Executive Officer of the Department of Environmental Protection is responsible for assessing compliance with the conditions, procedures and commitments contained in this statement and for issuing formal, written advice that the requirements have been met.
- 5-3 Where compliance with any condition, procedure or commitment is in dispute, the matter will be determined by the Minister for the Environment.

## **6 Environmental Management System**

- 6-1 In order to manage the environmental impacts of the project, and to fulfil the requirements of the conditions and procedures in this statement, within 12 months following the commencement of the widespread use of bauxite residue as a soil amendment, the proponent shall demonstrate to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection that there is in place an environmental management system which includes the following elements:
- 1 An environmental policy and corporate commitment to it;
  - 2 Mechanisms and processes to ensure:
    - (1) planning to meet environmental requirements;
    - (2) implementation and operation of actions to meet environmental requirements;
    - (3) measurement and evaluation of environmental performance; and
  - 3 Review and improvement of environmental outcomes.
- 6-2 The proponent shall implement the environmental management system referred to in condition 6-1.

### ***Conditions***

## **7 Code of Practice**

- 7-1 To ensure responsible use and reflect management changes found necessary as a result of monitoring, the proponent shall, prior to the widespread use of bauxite residue as a soil amendment, prepare a Code of Practice, to the requirements of the Environmental Protection Authority on advice of the Water and Rivers Commission, incorporating environmental issues which include consideration of the following:
- (1) dust control during transport and application;
  - (2) assessment of optimum application rate based on changes to pH;
  - (3) separation distance, necessary to protect flora and water quality, between areas where bauxite residue is applied and areas of remnant vegetation or watercourses; and

(4) frequency of review to incorporate management recommendations gained from experience and monitoring of bauxite residue use.

7-2 The proponent shall review the Code of Practice at a frequency determined in accordance with condition 7-1.

7-3 The proponent shall monitor and ensure compliance with the environmental aspects of the Code of Practice prepared in accordance with condition 7-1.

## **8 Evaluation of Effects of Application Rate and Soil Mixing Scenarios**

8-1 To evaluate the variation in environmental effects arising from application rates and soil mixing scenarios, the proponent shall, within six months following the commencement of widespread use of bauxite residue for soil amendment, develop a research program which includes an evaluation of the following potential environmental effects for a range of application rates and subsequent soil mixing scenarios:

(1) changes to soil permeability;

(2) changes to surface water run-off flow patterns and volumes; and

(3) changes to pH of surface water run-off;

to the requirements of the Environmental Protection Authority on advice of the Water and Rivers Commission.

8-2 The proponent shall implement the research programme required by condition 8-1.

8-3 The proponent shall make available to the public, results from the research programme required by condition 8-1 to the requirements of the Environmental Protection Authority.

## **9 Catchment Monitoring**

9-1 Within six months following the commencement of widespread use of bauxite residue as a soil amendment, the proponent shall design a monitoring programme to monitor key catchments with a high proportion of their area amended with bauxite residue, and key environments in the Peel-Harvey Coastal Plain Catchment.

This programme shall address the following matters:

(1) adequacy of measures to protect remnant vegetation;

(2) impacts from changes in pH and aluminium concentrations in the catchment on wetlands;

(3) changes to surface water run-off flow patterns and volumes, and the effects of these changes on wetlands and drainage water quality; and

(4) monitoring of ground and surface water quality parameters, including pH, heavy metals, turbidity and radioactivity, to confirm predictions in the Public Environmental Review document and the assessment report;

to the requirements of the Environmental Protection Authority on advice of the Water and Rivers Commission.

- 9-2 The proponent shall make available to the public annually, results from the monitoring programme required by condition 9-1.
- 9-3 The proponent shall review and re-submit the monitoring programme every five years until such time as the Environmental Protection Authority determines that further monitoring is not required.
- 9-4 The proponent shall implement the monitoring programme required by conditions 9-1 and 9-3.

## **10 Total Annual Application Limit and Review**

- 10-1 As a precautionary measure, and to allow for adaptive management of the widespread use of bauxite residue for soil amendment, the proponent shall limit the total amount of material applied to the Peel-Harvey Coastal Plain catchment area shown in Figure 1 of schedule 1.

The total annual application limits for each calendar year are as shown in Table 1 of schedule 1.

- 10-2 Prior to the end of the year 2005, the proponent shall recommend to the Environmental Protection Authority the proposed total annual application limits for the following five years, based on the results of the research and monitoring programmes referred to in conditions 8 and 9, respectively.
- 10-3 Upon receipt of the recommendations referred to in condition 10-2, the total annual application limits for the following five years will be determined by the Environmental Protection Authority on advice of the Water and Rivers Commission.
- 10-4 The procedure referred to in conditions 10-2 and 10-3 for determining the total annual application limits shall be repeated at five-yearly intervals from the date of this statement until such time as the Environmental Protection Authority determines that this is no longer required.



CHERYL EDWARDES (Mrs) MLA  
MINISTER FOR THE ENVIRONMENT

14 SEP 2000

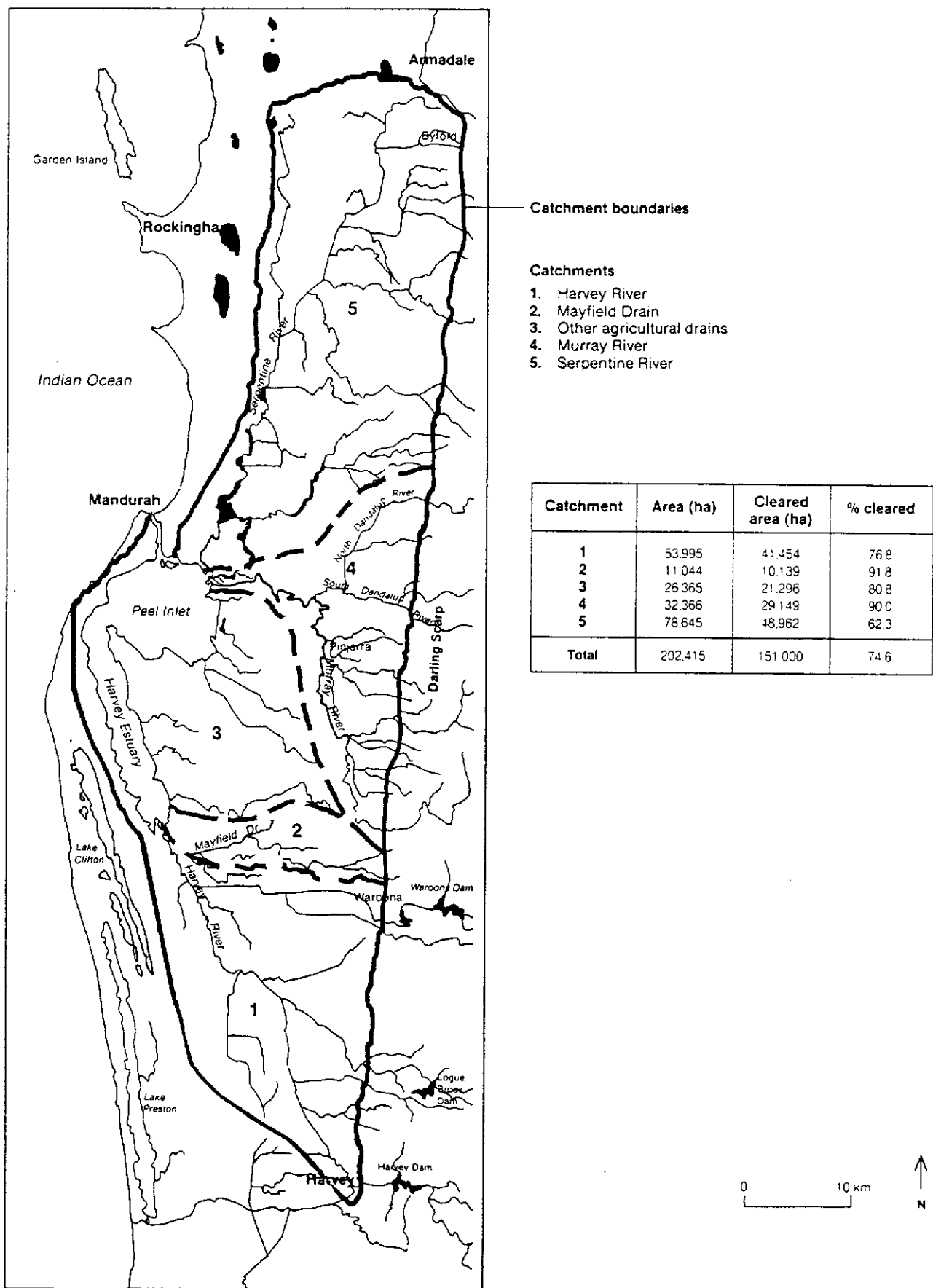
## Schedule 1

### Figure 1 (attached)

The attached plan shows for illustrative purposes, the boundary of the Swan Coastal Plain catchment of the Peel Harvey estuary system. The precise location of the boundary is set out in schedule 1 of the Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992.

**Table 1**

Calendar year	Total annual application limit (tonnes)
2000	50 000
2001	50 000
2002	75 000
2003	85 000
2004	100 000



**Figure 1**  
**Location map of Peel-Harvey Estuary System and boundaries of the Coastal Plain Catchment and Sub-catchments**

**Proponent's Consolidated Environmental Management  
Commitments**

(4 February 1994)

**WIDESPREAD USE OF BAUXITE RESIDUE  
PEEL-HARVEY COASTAL PLAIN CATCHMENT  
(766/1266)**

**AGRICULTURE WESTERN AUSTRALIA**



WIDESPREAD USE OF BAUXITE RESIDUE, PEEL-HARVEY COASTAL PLAIN  
CATCHMENT (766)

WESTERN AUSTRALIAN DEPARTMENT OF AGRICULTURE

The West Australian Department of Agriculture will accept commitments binding it to:

1. Commencing negotiations with Alcoa of Australia Limited which, if successful, will produce a Code of Practice and management structure enabling the widespread use of bauxite residue for nutrient control in the Peel-Harvey coastal plain catchment.
2. Maintaining, in conjunction with other agencies and institutions, and to the satisfaction of the EPA, a program of strategic monitoring of residue use and its benefits and impacts, under the program established through the Codes of Practice.
3. Providing the EPA and the general public with regular reports outlining the use and distribution of bauxite residue, under the program developed above and produce a major review of the program for EPA assessment within ten years.