



MINISTER FOR ENVIRONMENT

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

MINNINUP SAND MINING PROPOSAL

WESTRALIAN SANDS LIMITED

This proposal may be implemented subject to the following conditions:

1. The proponent shall adhere to the proposal as assessed by the Environmental Protection Authority and shall fulfil the commitments made in the Environmental Review and Management Programme (copy of commitments attached).
2. The proponent shall ensure that stabilisation and rehabilitation of mined areas is progressively carried out to the satisfaction of the Environmental Protection Authority and the Department of Mines in the manner described in the Environmental Review and Management Programme to achieve the objectives described in the ERMP including:
 - . three consecutive years stability of land form;
 - . perennial plant species surviving at least two summer seasons;
 - . vegetation density providing long-term stability of restored land form, and
 - . re-established vegetation containing particular species at appropriate densities.
3. Regular monitoring of rehabilitated areas shall be carried out by Westralian Sands Ltd as prescribed by the Environmental Protection Authority and Department of Mines. Results of the monitoring shall be reported to the Department of Mines (and hence to the Environmental Protection Authority) at six monthly intervals, with results being made available for public inspection within one month of receipt by the Environmental Protection Authority of said reports. On-site inspections shall be carried out by the Department of Mines to check the company's monitoring results.

Monitoring shall continue until such time as the Department of Mines and the Environmental Protection Authority are satisfied that rehabilitation and stabilisation of the dunes has been successful.

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4. Should monitoring indicate that rehabilitation as required in condition 2 is not being successfully met, the proponent shall undertake remedial or additional works to the satisfaction of the Environmental Protection Authority and the Department of Mines.
5. Dune stability and beach erosion shall be monitored by the proponent as prescribed by the Department of Mines, Department of Marine and Harbours and the Environmental Protection Authority. The required monitoring programme shall be prepared to the satisfaction of those agencies prior to the commencement of mining. Results of the monitoring shall be reported to the Department of Mines, Department of Marine and Harbours and the Environmental Protection Authority until such time as they are satisfied that coastal movements (as a result of mining operations) have reached equilibrium. These reports are to be submitted to the Department of Mines and hence to the Environmental Protection Authority and Department of Marine and Harbours, at six monthly intervals, with results being made available for public inspection within one month of receipt by the Environmental Protection Authority.

On-site inspections shall be carried out by the Department of Mines and the Department of Marine and Harbours, to check on the company's monitoring results.

6. If monitoring required in condition 5 indicates that dune and beach erosion is occurring at an unacceptable rate, the proponent shall undertake remedial action to the satisfaction of the Department of Mines and Marine and Harbours and the Environmental Protection Authority.
7. The proponent shall carry out gamma radiation surveys over mined areas on a quarterly basis as prescribed by the Environmental Protection Authority and the Department of Mines. Results of the monitoring shall be reported to the Department of Mines (and hence to the Environmental Protection Authority) at six monthly intervals. Results of monitoring shall be made available for public inspection within one month of receipt by the Environmental Protection Authority.

On-site inspections, including a final post mining radiation survey shall be carried out by Department of Mines to check on the company's monitoring results.

8. The proponent shall monitor potential public exposure to dust and gamma radiation levels associated with the mining operations and transport of heavy mineral concentrates for the project, as prescribed by the Environmental Protection Authority and Department of Mines. The proponent shall immediately notify the Department of Mines (and hence the Environmental Protection Authority) if any adverse impacts are identified and take immediate measures to ameliorate any adverse impacts, to the satisfaction of the Environmental Protection Authority and Department of Mines. Reports of monitoring shall be submitted annually to the Department of Mines and hence to the Environmental Protection Authority. Relevant monitoring results shall be made available for public inspection within one month of receipt by the Environmental Protection Authority.

On-site inspections shall be carried out by Department of Mines to check on the company's monitoring results.

Procedures

The following procedures shall be followed with respect to the implementation of the above conditions.

Where the proponent is required to report on monitoring results, or to undertake action to the specification of several authorities, the proponent need only provide advice to or seek approvals from the Department of Mines. That Department shall then refer the advice or request to the other agencies involved and shall ensure that the requirements of those agencies are incorporated into approvals or requirements issued to the proponent by the Department of Mines.

Barry Hodge, MLA
MINISTER FOR ENVIRONMENT

11 OCT 1988

SUMMARY OF COMMITMENTS

1. Westralian Sands Limited (WSL) in conjunction with Cable Sands (WA) Pty Ltd (CS) will undertake heavy mineral sand mining of the beach, foredune and primary dune at Minninup.
2. The area to be mined is enclosed within M70/87 (previously DC11H). Some land within CS private holdings to the east of M70/87 will also be mined as part of the operation.
3. Mining will commence immediately approval is received from the Minister for Environment and relevant decision making authorities. This will maximise returns, since much of the success of the project depends on commencing operations as soon as possible.
4. WSL and CS agree to comply with the relevant statutory requirements of both Western Australian State and Commonwealth Authorities.
5. Site preparation prior to mining will occur in accordance with the descriptions presented in Sections 3.2 and 3.3 of this Environmental Review and Management Programme (ERMP).
6. The mining operation, transport and ore processing will comply with the general descriptions presented in Sections 3.4 to 3.6 and Appendix A of this ERMP.
7. Clean sand will be used to rebuild the fore, primary and secondary dunes.
8. Reconstruction of the coastline will follow the guidelines presented in Appendix B of the document.
9. Rehabilitation will commence as soon as mining is completed at a particular location. Rehabilitation will comply with the guidelines presented in Sections 3.8 and 9.2 of this ERMP. Techniques of stabilisation mentioned in Appendix C will be applied as and where necessary.
10. Although WSL, as the tenement holder, has ultimate responsibility for rehabilitation, work will be done by CS under an agreement between them and WSL. WSL and CS will be operating in the area for many years and will maintain responsibility for dune stability for as long as is reasonably necessary. It is expected that complete stabilisation will have been reached within three years of cessation of operations. Successful rehabilitation will be determined by the Mines Department, using the suggested endpoint standard outlined in Section 9.4 of this ERMP.
11. Water supplies, electricity demands, access roads and sewerage and rubbish disposal will be carried out as described in Section 3.10 of the ERMP and will not be varied to any great extent, without prior consultation with the EPA.
12. All workers in the mineral sand mining operation will be kept within radiation standards set for the mineral sand mining industry.
13. Every effort will be made to protect regrowth vegetation on the rehabilitated areas from fire and weed encroachment.

SUMMARY OF COMMITMENTS (cont'd)

14. Part of the rehabilitation process will be to create varied habitat types.
15. In the event that material of Aboriginal origin is uncovered during operations all work will cease and the Aboriginal Sites Department of the Western Australian Museum will be called upon to advise.
16. Dust and noise levels will be kept below current standards set for the mining industry.
17. Monitoring of the rehabilitation will be undertaken jointly by WSL and CS and the programme modified as necessary to ensure greatest success.
18. Dune stability and beach erosion will also be monitored and remedial action taken if necessary.
19. Results of monitoring will be presented to the Mines Department on a regular basis pending complete finalisation in about three years.
20. Decommissioning will be in conjunction with the CS operation. The area will be left clean and tidy, adequately rehabilitated and with some provisions for recreation.