Appendix 2

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POSSIBLE IMPACT OF COAL MINE AND POWER STATION

by Andrew A. Burbidge[A], Stephen D. HopperA, Angas J.M. HopkinsA, T.C.J. Hill[B], Wayne G. Schmidt[C], Stephen van Leeuwen[A] and E.A. Griffin[D]

[A] Department of Conservation and Land Management, Western Australian Wildlife Research Centre, P.O. Box 51, Wanneroo, W.A. 6065.
[B] Department of Conservation and Land Management, Como Research Centre, P.O. Box 104, Como 6152.
[C] Department of Conservation and Land Management, Recreation, Landscape and Community Education Branch, Murdoch House, 5 The Esplanade, Mount Pleasant, W.A. 6253.
[D] E.A. Griffin and Associates, 47 McMillan Street, Victoria Park, W.A. 6100.

Abstract

This chapter identifies potential impacts of the proposed coal mine and power station on the proposed Lesueur National Park. It is not a full environmental impact statement.

Consultants to the mining Companies have identified a minimum impact area (the coal mines and batters alone) and a maximum impact area (an area within a line surrounding all possible mines, batters, the power station and infrastructure). They state that the actual area of impact lies somewhere between these figures. The minimum impact area within the proposed national park is about 934 ha and the maximum impact area is about 4 258 ha. An additional 3 406 ha outside the proposed national park boundaries is within the maximum impact zone, some of it bushland of high nature conservation value.

The four eastern landforms of the proposed national park will be affected to varying degrees, with Banovich Uplands (40% - 94%) and Bitter Pool Rises (8% - 100%) being most affected, and Gairdner Dissected Uplands (4% - 28%) and Lesueur Dissected Uplands (0% - 3%) being less affected. The upper portions of the four major catchments in the proposed national park will sustain high impact.

Some vegetation types are greatly affected, particularly lateritic heath dominated by an undescribed species of Dryandra, two other lateritic upland types of heath, the best stands of a particular type of wandoo woodland, and Calothamnus quadrifidus heath.

All seven species of Declared Rare Flora that occur in the proposed national park will be affected. Figures for total plants destroyed, both inside and outside the park, vary from 0% to 57% (minimum and maximum impact) of individuals for Acacia forrestiana to 6% to 79% for Hakea megalosperma, 11% to 22% for the sun orchid Thelymitra stellata and 12 to 49% for Banksia tricuspis. Figures for those plants inside the proposed park are higher, with 91% of Asterolasia drummondii and 100% of Thelymitra stellata being affected under maximum impact. Of the 111 regional endemics in the proposed national park, two thirds (65%) would be affected should mining affect all the maximum impact area. Twenty-six very geographically restricted plant taxa occur in the maximum impact zone.

Impact on animal species is difficult to quantify because of the lack of data. Particular concern is expressed for species that depend on the wandoo woodlands for nesting, especially Carnaby's Black Cockatoo and the Regent Parrot.

Dieback disease caused by Phytophthora species would have a major impact if introduced because of the suitable climate, the abundance of susceptible plant species and vegetation types and the type of soils present. The probability of introduction of Phytophthora is high when extensive use of earth-moving equipment and vehicles takes place in a highly susceptible area, even if high standards of hygiene are maintained. If introduced, the impact of Phytophthora could be extensive, because the development affects all catchments in the proposed national park, and because of the high proportion of susceptible vegetation types and plant species.

The most scenic parts of the proposed national park would not be mined. However, there will be a significant degree of impact on visual resource values if the mine goes ahead because the area that will be mined is a supporting landscape and important foreground to the eastern flank of the Gairdner Range. The viewsheds east and northeast from the eastern edge of the Gairdner Range would also be affected and the coal-fired power station, with its reported 200 metre high stack, would also be visible from a considerable distance, both from within and outside the reserve. The natural character and scenic beauty of what are some of the most attractive landscapes within the northern kwongan will be severely degraded should the project proceed.

Experience with attempted rehabilitation of somewhat similar kwongan vegetation at Eneabba suggests that rehabilitation at Lesueur would be extremely difficult, if not impossible. The Lesueur mining operation will have problems additional to those met by the sand mining Companies at Eneabba. The substrate is quite different and soils are much more complex, and the overburden is likely to be toxic to plant growth. Moreover, successful germination and establishment, either in cultivation or rehabilitation areas, of many species of Restionaceae, Cyperaceae, Orchidaceae and Epacridaceae has not been achieved, due to as yet unknown horticultural difficulties.