

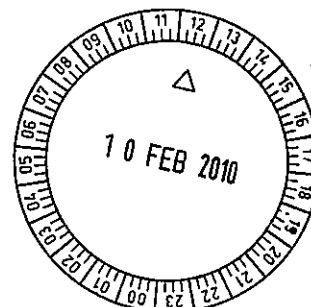


Government of **Western Australia**  
Department of **Environment and Conservation**

**PUBLIC**

Your ref:  
Our ref: CEO1241/09 / 2009/005191-1  
Enquiries: Dr Geoff Stoneman  
Phone: 9442 0335  
Fax: 9386 1578  
Email: jacqueline.jewell@dec.wa.gov.au

Hon Brian Ellis MLC  
Chairman  
Standing Committee on Environment and Public Affairs  
Legislative Council Western Australia  
Parliament House  
PERTH WA 6000



Dear Mr Ellis

**PETITION NO 40 – TIMBER HARVESTING IN MUNDLIMUP FOREST BLOCK, JARRAHDALE**

Thank you for your letter of 19 November 2009 regarding the petition tabled by Hon Alison Xamon MLC relating to proposed timber harvesting in Mundlimup forest block near Jarrahdale.

I note that you requested input from the Department of Environment and Conservation (DEC) by 11 December 2009 and I apologise that this has not been provided within this time. Preparation of this response required some research by DEC, and the Committee's staff were contacted in respect of extending the response beyond the due date.

Timber harvesting in State forest and timber reserves is provided for and managed through the framework of the *Forest Management Plan 2004-2013* (FMP). The FMP was developed according to the principles of ecologically sustainable forest management, involved extensive public consultation and was subject to an environmental impact assessment by the Environmental Protection Authority (EPA). An outcome of the FMP was the inclusion into the conservation reserve system of significant areas of forest previously available for harvesting. Mundlimup forest block remains State forest and, as such, is available for timber harvesting.

Over 50 per cent of the 2.5 million hectares covered by the FMP is in existing or proposed conservation reserves, that is national parks, nature reserves and conservation parks. Within State forest and timber reserves a further 17 per cent is protected in informal reserves (e.g. areas surrounding streams and rivers and areas classified as old-growth forest). Another four per cent of State forest and timber reserves is included in fauna habitat zones (FHZ) and is, therefore, also excluded from timber harvesting.

**DIRECTOR GENERAL AND ENVIRONMENTAL SERVICES DIVISIONS:** The Atrium, 168 St Georges Terrace, Perth, Western Australia 6000  
Phone: (08) 6467 5000 Fax: (08) 6467 5562 TTY: 1880 555 630

**PARKS AND CONSERVATION SERVICES DIVISIONS:** Executive: Corner of Australia II Drive and Hackett Drive, Crawley, Western Australia 6009  
Phone: (08) 9442 0300 Fax: (08) 9386 1578 Operations: 17 Dick Perry Avenue, Technology Park, Kensington, Western Australia 6151  
Phone: (08) 9219 8000 Fax: (08) 9334 0498 TTY: 9334 0546

**POSTAL ADDRESS FOR ALL DIVISIONS:** Locked Bag 104, Bentley Delivery Centre, Western Australia 6983  
[www.dec.wa.gov.au](http://www.dec.wa.gov.au)  
[wa.gov.au](http://wa.gov.au)

The coupe in Mundlimup forest block identified on the 2009 annual timber harvest plan is 950 hectares, of which 250 hectares, equating to 26 per cent, are informally reserved and are unavailable for timber harvesting.

Timber harvest plans are publicly available and assist in identifying community issues, thus allowing the Forest Products Commission (FPC) to plan and manage harvesting to minimise disturbance at the coupe level. Complementary to this, DEC manages an environmental assessment process designed to protect the range of forest values, including recreation sites and soil and water, during timber harvesting operations.

A central concern of the petitioners was the potential for harvesting to disturb popular walk trails and historically significant sites located in the vicinity of the harvest areas. Measures to protect visual landscape values during harvesting are outlined in the *Silvicultural Practice in the Jarrah Forest* guideline and include:

- aesthetic buffers to reduce the intensity of timber harvesting by retaining a greater number of trees;
- providing for added diversity of overstorey and understorey vegetation; and
- felling, rather than notching and leave standing, those trees which would need to be removed to reduce competition.

The most appropriate approach is considered as part of the detailed coupe level planning undertaken by the FPC.

The Committee has sought comment from DEC on the effectiveness of retaining habitat elements during harvesting. Safeguarding the biological diversity of the State's south-west forests is a key objective of the FMP. This is achieved on several levels - at the whole of forest scale through a comprehensive, adequate and representative conservation reserve system, and on State forest and timber reserves through a network of informal reserves and FHZs from which harvesting is excluded. At an operational level the impacts from harvesting are mitigated through the environmental management requirements to protect flora and fauna, identifying areas of old-growth forest for inclusion in informal reserves, compliance with hygiene (dieback) protection and retaining habitat trees and logs in coupe areas.

DEC draws on a comprehensive body of knowledge which has informed current forest management practices. Changes to the general fauna requirements for timber harvesting were introduced in the FMP recognising that tree hollows, as a critical habitat element likely to be affected by timber harvesting, needed to be accommodated by increasing the number of habitat trees retained in planned harvest areas. The number of primary habitat trees to keep was increased from three per hectare to five per hectare, with a new requirement to keep six to eight secondary habitat trees per hectare. Primary habitat trees are trees which have a moderate to high probability of bearing hollows, and secondary habitat trees are trees which have a lower probability of bearing hollows, but provide for the sustained availability of hollows over time and will contribute to structural diversity in the harvested area.

At an operational level the characteristics of habitat elements to be retained during timber harvesting are captured in the *Silvicultural Practice in the Jarrah Forest* guideline. The FPC is required to select for the elements as outlined in the guidelines at a coupe level to be protected during harvesting. DEC monitors this element of pre-harvest planning in the context of the guideline requirements. This component is audited regularly and findings are published in DEC's annual report under the *Forest auditing* section. I have enclosed the findings from 2008-2009 which measure a range of habitat elements.

An initiative of the FMP was the introduction of a network of FHZs. FHZs are a minimum of 200 hectares in size and are spaced systematically between two and four kilometres apart, with an objective to provide significant areas of relatively undisturbed habitat for fauna as a source of animals for re-colonising regenerating forest. Mundlimup forest block contains a 220 hectare FHZ.

There are a number of statements made in the petition's accompanying submissions which need to be clarified.

- *The Wungong catchment trial is cited as a threat to amenity of the Jarrahdale area*

The Wungong catchment trial is undertaken within the framework of the FMP, it was assessed by the EPA who advised that it should proceed as an experimental trial subject to the Water Corporation implementing the EPA's advice and recommendations. The trial is designed to provide robust information to gain a better understanding of the effects of forest thinning on streamflow in the current climate, as well as improving our knowledge of the environmental, social and economic impacts of thinning.

- *Mechanical harvesting practices are destructive of soil composition*

The impact of timber harvesting on soil is an important consideration and is monitored by the FPC and DEC during harvesting. Since the FMP commenced in 2004, DEC has invested considerable effort into implementing the soil protection initiatives outlined in the plan, with the result that major improvements have been made in reducing the impact of timber harvesting on soils. Over the past five years policy and operational control documents have been reviewed and revised, including guidelines for the conservation of soil and water values and a soil management manual.

- *The considerations and needs of the Jarrahdale community were not accounted for in the development of the FMP*

As part of the public consultation phase to develop the FMP, the Jarrahdale community and representatives of the Shire of Serpentine Jarrahdale wrote to the Conservation Commission of Western Australia with a similar proposal to that outlined in the petition. As a result the Conservation Commission met with representatives of the Jarrahdale community to discuss the conservation of the area's recreational and heritage values. The Conservation Commission, in its reply from May 2003 to the Shire, concluded that it was confident that the

objectives of the Jarrahdale community could be achieved within forest management principles as outlined in the FMP.

DEC believes that the measures detailed in the FMP afford the necessary protection, during timber harvesting, to the range of forest values, including those highlighted by the petitioners.

I trust this information will assist the Committee in its deliberations. Should you require any further information, please contact Dr Geoff Stoneman, DEC's Director Sustainable Forest Management, on 9442 0335 or email [geoff.stoneman@dec.wa.gov.au](mailto:geoff.stoneman@dec.wa.gov.au).

Yours sincerely

A handwritten signature in black ink, appearing to read 'Keiran', followed by a stylized, wavy line.

Keiran McNamara  
DIRECTOR GENERAL

8 February 2010

Enc

non-compliance in timber harvesting operations is identified, DEC may issue the proponent with an Incident Report (IR) for minor issues, a Works Improvement Notice (WIN) if the non-compliance can be rectified by further field operations, or a Management Letter (ML) if it cannot. In 2008–09, staff issued 13 IRs, eight WINs and seven MLs, each of which covered one or two issues. Seven of the WINs and MLs related to systems and process issues, four to soil and water issues, two related to biodiversity issues, one to ecosystem health and vitality issues, and one to productive capacity issues. Of the 15 WIN and ML issued in 2008–09, three have been closed with satisfactory outcomes, and 12 are yet to be closed. Of the WIN and ML issued in 2007–08, all those that remained open at the end of 2007–08 still remain open.

## Forest monitoring

Nine *ForestCheck* monitoring grids in Wellington District were re-assessed in spring 2008 and autumn 2009 to provide information about the response of biodiversity to timber harvesting in the jarrah forest. Additional surveys to quantify the amount and condition of coarse woody debris at *ForestCheck* monitoring grids were conducted in recognition of the importance of woody debris for fauna habitat and carbon stock accounting.

Trapping and spotlight surveys were undertaken to monitor vertebrate fauna populations in the Kingston study area which was harvested and regenerated in 1996.

DEC continued to support a PhD student investigating factors affecting regeneration of jarrah in stands harvested by the shelterwood method. This study is developing more precise methods for estimating seed crops in standing trees, and improving understanding of the factors affecting seed release following post-harvest burning. The study also aims to identify relationships between season of burn, fire behaviour, seedfall rates, seed losses due to predation, emergent numbers and seedling mortality rates. These factors are being measured following two post-harvest burns completed in spring 2008 and other burns completed in past years. Application of this knowledge will assist recruitment in shelterwood cut areas.

Monitoring of the response of streamflow and groundwater to timber harvesting in two experimental catchments in the intermediate rainfall zone of the jarrah forest was continued. There was no significant annual streamflow or stream salinity response to either treatment and groundwater level continued to fall despite the timber harvesting.

Findings from a 20-year study of tree growth in low rainfall jarrah forest subject to different fire regimes were accepted for publication in *Environmental Management*. The study found no evidence that regular low-intensity burning had adverse impacts on tree growth, productivity or health. However, long periods of fire exclusion were associated with reduced rates of tree growth, probably because of increased competition for water from woody understorey shrubs.

## Forest auditing

*Compliance with the requirement to protect the integrity of management boundaries during harvesting*

The breach of a management boundary is considered an incident. Incidents are categorised as minor if a machine has crossed the informal reserve boundary with minimal soil disturbance or major if the crossing results in soil and vegetation disturbance or tree removal. The approved removal of trees from within zones for reasons of safety is not considered an incident. Compliance is presented in the following table.

## 2.1 REPORT ON OPERATIONS

► Back Contents Forward ►

### *Compliance with requirements for the protection of soil*

When the extraction of logs is completed in any block, and before the machinery leaves the site, interceptor banks and drains must be constructed across all extraction tracks and firebreaks with exposed soil to minimise the risk of erosion. Eighty-five per cent of assessed tracks complied with the requirement.

### *Compliance with requirements for the protection of threatened flora*

Field searches are conducted along proposed road alignments, log landing and gravel pit sites to identify threatened flora before clearing operations begin. Located populations of threatened flora are demarcated and protected from disturbing activity or, if that is not possible, approval to 'take' is sought. All coupes sampled had records of searches.

### *Compliance with requirements for the protection of threatened fauna*

Areas planned for harvesting are assessed in a desktop procedure with a system (Fauna Distribution Information System) that identifies the probability of habitats of threatened fauna occurring. Databases containing records of known habitats, populations and sightings are also consulted. All coupes sampled had evidence of the procedure being implemented.

### *Summary of compliance*

The achievement for each measure for 2008–09 is summarised below.

**Table 13: Summary of compliance**

Compliance with individual measures (%)	
Measure	2008–09
Protect management boundaries in harvesting	100
Phased logging in second order catchments	100
Retention of habitat trees	100
Retention of ground habitat	56
Requirements for the protection of crop trees	88
Requirements for tops disposal of crop trees and habitat elements	81
Pre-harvest planning checklists	100
Complete harvesting inspection report	100
Complete a post harvest inspection and certification report	80
Specifications for coupe demarcation	100
Requirements for the protection of soil	70
Requirements for the protection of threatened flora	100
Requirements for the protection of threatened fauna	100
Average compliance	83

### **Adaptive management**

DEC continued to contribute to the coordination and implementation by the Water Corporation of the Wungong Catchment Environment and Water Management project. This adaptive management trial in the 12,845-hectare Wungong Catchment aims to increase water availability by managing vegetation density. The project has now completed treatment of native forest in two sub-catchments (Cobiac and Chandler) over an area of 1,000 hectares of State forest. The research and monitoring program is continuing with a range of biodiversity measures being completed and monitoring of water responses and forest structure undertaken. Groundwater levels continue to show a falling pattern in response to declining rainfall. Information sessions have been presented to a range of stakeholders.