Work to repair defective rail in the Kwinana - Mundijong section of railway has been completed.

Work to replace defective rail in the Keysbrook - North Dandalup section of railway is scheduled to commence on 25 April 2000.

Work to replace defective rail in the following sections of railway has been completed:
- North Dandalup - Pinjarra
- Mundijong - Mundijong Junction
- Kwinana - Mundijong

In conjunction with the above work the following tasks are also being performed:
- Cross boring of sleepers
- Replacement of broken sleepers
- Upgrading of level crossings
- Re-establishment of ballast profiles
- Resurfacing and rail grinding

Turnouts are being replaced at Pinjarra and Alumina Junction.

General maintenance is being undertaken between Armadale and Bunbury on an as-required basis and includes:
- Upgrading of insulated joints
- Level crossing reconstruction
- Pedestrian maze maintenance
- Access road maintenance
- Cross boring and adzing of sleepers
- Lifting and packing
- Caretaker resleepering
- Caretaker rail and fastening replacement

(2)-(3) No.

LAND, SALE OF FISH POND RESERVE

850. Hon BOB THOMAS to the Leader of the House representing the Minister for Lands:

(1) At what stage is the process for the sale of the Fish Pond reserve in Festing Street, Albany?

(2) Is the Minister for Lands aware that the Adam Wolfe consultant report recommended that the site be:
   (a) listed on the Register of the National Estate;
   (b) listed on the Register of Heritage Places in Western Australia;
   (c) made the subject of a heritage agreement and a suitable conservation plan commissioned and developed;
   and
   (d) not disposed of but retained and managed as a public cultural heritage site having high local, regional and state significance.

(3) If not, will the Minister make himself aware of the contents of that report and comply with the recommendations?

(4) If not, why not?

Hon N.F. MOORE replied:

(1)-(4) Please refer to my response provided to Parliamentary Question Legislative Council 848 asked on Wednesday 27 October 1999.

SOUTH WEST FORESTS, TREE-HOLLOW HABITATS AND UNLOGGED BUFFER ZONES

851. Hon NORM KELLY to Attorney General representing the Minister for the Environment:

In the July/August 1999 edition of CALM News, in an article titled "Staff tour of south west forests", CALM community education officer Liz Moore is quoted as saying "For example, CALM’s forest staff take great care to see that sufficient tree-hollow habitats and unlogged buffer zones remain available for native animals. Foxes and land-clearing for agriculture, rather than logging, are the reasons some animals became locally extinct."

(1) Will the Minister for the Environment list the scientifically peer reviewed and published reports which demonstrate the amount of tree hollow habitats that are sufficient for each of the 51 hollow dependent mammals and birds found in the South West forests?

(2) Will the Minister list the scientifically peer reviewed and published reports that demonstrate the contribution unlogged buffer zones make to the conservation of the flora and fauna of the south West forests?

(3) Are these buffer zones permanently protected, or are they subject to future logging?

(4) If they are subject to future logging, what scientifically peer reviewed and published reports exist which demonstrate the effect that logging will have on their ability to contribute to the conservation of forest flora and fauna?

(5) Is it the case that trees left by CALM as habitat trees do not necessarily contain any hollows and in fact only need to be defined by CALM as "potential" habitat trees?
(6) Have there been any instances where habitat trees marked with an H have been felled during logging operations?
(7) If yes, how many instances have been recorded?
(8) How many years does it take for regrowth jarrah trees to develop hollows of the necessary characteristics to cater for the largest of the 51 hollow-dependent bird and mammal species in the south west forests?
(9) Have logging or prescribed burning contributed to the decline or loss of any species of forest fauna?
(10) What forms of accountability and peer review apply to the information disseminated by CALM education officers to the 15,000 school children the article claims are taught “conservation and land management values” each year?

Hon PETER FOSS replied:

(1) The question incorrectly refers to 51 species. The southwest forests have only 37 bird and mammal species dependent on hollows. The following scientific papers collectively provide information about hollow-using fauna, their occurrence in forests, home range, sizes of hollows used, and the density of trees of a size necessary to bear hollows utilizable by fauna. Most effort has been directed to studying the species requiring large hollows in standing trees: the Forest Red-tailed Black Cockatoo, Koomal and Ngwayir. A comprehensive study of the abundance and dimensions of hollows in jarrah and marri trees has been concluded and the data collected are being analysed and prepared for publication.


Tasmanian Department of Primary Industry and Fisheries, Hobart.


Whittington, K R and Williams, M R (1997). Survival of hollow-bearing jarrah (*Eucalyptus marginata* Sm.) and marri (*Corymbia calophylla*) trees in the south-west forest region of WA. Report prepared for the RFA.


The following papers, while including some accurate information relevant to the question, also contain serious errors of fact and interpretation and appear to have been inadequately peer-reviewed.


(2) Most attention in the past has been given to riparian buffers. Data have been collected in the period 1995-9 as part of the Kingston project on the role of temporary exclusion areas (TEAS) as buffers in jarrah forest. These data are currently being analysed and written up.


(3) Buffer zones are travel routes (roads), river and stream reserves, and diverse ecotype zones. No harvesting occurs in river and stream zones other than trees removed in the course of road construction or for fire control of public safety. Travel route zones will remain unharvested except for those portions of regrowth forests where thinning can be undertaken in a manner consistent with defined visual quality objectives. Diverse ecotype vegetation communities are excluded from timber harvesting. Associated activities such as roading will be minimised. Rock outcrops (over 2 ha in size), lakes, swamps and other wetlands, heath, herb and woodland communities are kept free from disturbance apart from necessary roading.

(4) Not applicable

(5) In 1989, following the introduction of gap-cutting in jarrah forest, hollow dependent species have been protected by leaving three marked habitat trees per hectare. Subsequent research resulted in this prescription being improved in 1995. Four marked habitat trees and 6-8 marked potential habitat trees are retained per hectare, providing 40 habitat trees and 60-80 potential habitat trees in each 10 ha gap. It is unlikely that the four marked habitat trees lack hollows, as they are selected on the following criteria:
- trees with obvious signs of use by fauna (such as scratch-tracks of possums), visible holes, and/or broken branch stubs.
- trees mature to senescent, with diameter at breast height 70cm or more.
- tree crowns with moderate deterioration (senescence categories 2-5).

(6) Trees marked for habitat are occasionally felled for the following reasons:
- Accidental damage to a habitat tree can occur during the harvesting operation leaving the tree in a dangerous or unhealthy state requiring the tree to be removed.
- Tree marking may take place before roading alignment have been identified. Subsequent roading and landing locations may require the removal of trees marked for habitat.

(7) The removal of habitat trees and their replacements are not recorded. Assessments are made and recorded regarding the level of retention of habitat trees.

(8) Hollows suited to black cockatoos, Koomal and Ngwayir develop in trees aged about 130 years. Thus, potential habitat trees with DBHOB from 30cm to 60cm (at which suitably-sized hollows develop) require up to 70 years to provide large hollows.
(9) No vertebrate or plant species are known to have permanently declined or to have become extinct as a result of logging or prescribed burning.

(10) Education resources provided to schools are prepared by educators employed by CALM with the assistance of members of the teaching fraternity and the Education Department. Prior to printing, they are reviewed for scientific accuracy by CALM scientists and senior staff and for their educational value by independent educators. Ongoing assessment of education programs and educational excursions offered by CALM is conducted through evaluation forms completed by teachers and students, assessment by educators working in similar fields, and observed responses to these programs and excursions. As well as these ongoing assessments, professional evaluations have also been carried out by outside agencies such as the National Key Centre for Science and Mathematics, Curtin University of Technology, and Edith Cowan University.

JARRAH SAWLOGS, NANNUP SUPPLY AREA

853. Hon NORM KELLY to the Attorney General representing the Minister for the Environment:

(1) For each of the past 5 years, what volume of
(a) first and second grade jarrah sawlogs;
(b) third grade jarrah sawlogs;
(c) jarrah charcoal logs; and
(d) other jarrah logs

was derived from the Nannup supply area?

(2) For each category and for each year, what volume of logs from the Nannup supply area was supplied to the Bunnings Forest Products Nannup sawmill?

(3) Under the RFA, what is the expected volume of each category over the next 20 years, from the Nannup supply area?

(4) If Bunnings Forest Products ceases its current saw milling operations at Nannup and transfers to Deanmill, and if Mr Max Jensen receives approval for 20 000m³ of jarrah sawlogs for a new manufacturing centre at Nannup, will Bunnings continue to receive the allocation of jarrah sawlogs from the Nannup supply area it currently processes at its Nannup mill?

Hon PETER FOSS replied:

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