

FOREST MANAGEMENT PLAN 2004-2013 STATUS OF IMPLEMENTATION AS AT 31 DECEMBER 2006

CONSERVATION COMMISSION OF WESTERN AUSTRALIA

May 2008



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Introduction

The *Forest Management Plan 2004-2013* (FMP) sets out a series of actions relating to a range of objectives for management of Western Australia's south-west forests that combine to achieve ecologically sustainable forest management. These actions require the Conservation Commission of Western Australia (Conservation Commission), the Department of Conservation and Land Management (since mid-2006 the Department of Environment and Conservation here referred to as the Department) and the Forest Products Commission to undertake a range of specific activities.

The Conservation Commission and the Department are not required to report annually on compliance with the FMP. However, both organisations have chosen to prepare an annual report. The contents of the Department's report are incorporated into this report.

The Forest Products Commission is required to produce an annual report on the compliance by its staff and contractors with the provisions of the FMP and subsidiary management guideline documents (Action 32.5). That compliance report for 2006 has been published on the Forest Products Commission's website¹ and its contents are incorporated into this report.

Each Action in the FMP includes either an actual (in the text of the Action) or indicative (in Appendix 14 of the FMP) timeline for its implementation and completion.

This report addresses the Actions in the order they appear in the FMP and describes the implementation status of each as at 31 December 2006, including the actions of the Conservation Commission, the Department and the Forest Products Commission.

¹ http://www.fpc.wa.gov.au/pdfs/FMP%20Compliance%20Report%20as%20at%2031%20December%202005%20_final_.pdf

Biological diversity

Biological diversity

| FOREST MANAGEMENT PLAN ACTION | IMPLEMENTATION STATUS |
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| <p>1. FORMAL RESERVES</p> <p>The plan proposes the following actions at the whole of forest scale for the purpose of seeking to conserve biodiversity and ecological integrity in all native forest ecosystems through the establishment and management of a system of reserves that is comprehensive, adequate and representative:</p> | |
| <p>1.1 The Department will initiate the processes required for the land category changes proposed by the plan by:</p> <p>1.1.1 undertaking fine scale reserve design for the parks proposed in the <i>Protecting our old-growth forests</i> policy so as to include within the parks old-growth forest adjacent to the nominal boundaries (<i>on plan commencement & ongoing</i>);</p> <p>1.1.2 facilitating the Government's community consultation process on fine-scale reserve design (<i>on plan commencement & end of year 2</i>); and</p> <p>1.1.3 consulting with the Conservation Commission and then advising the Minister for the Environment on final reserve boundaries. (<i>on plan commencement & ongoing</i>)</p> <p>Consultation with the community and affected government and local government authorities as contemplated by Action 1.1.2 may result in minor amendments to the boundaries of reserves shown on Map 3 and Map 5.</p> | <p>In 2006 a submission was made to the Australian Heritage Council seeking the removal from the Register of the National Estate those parts of the Surface, Dale and Russell places that were not included on the conservation reserve system. This is to resolve the issue that is delaying the proclamation of 12 areas from the 3 Reserve Acts assented to in 2004.</p> <p>Work continued on the fine-scale mapping and consultation with local government authorities, relevant State Government agencies, service utilities and Aboriginal group on the remaining 97 land category changes proposed in the FMP that were not implemented in the 2004 Reserve Acts.</p> <p>The category changes are proposed to be implemented through a further Reserves Bill in 2007/2008 or administratively under the <i>Land Administration Act (1997)</i>.</p> |
| <p>1.2 The Department will manage the areas proposed by Appendix 2 for inclusion in a national park, nature reserve or conservation park consistently with their proposed land category and purpose and relevant Departmental policies until such time as they are formally created. Timber production in these areas will not be permitted. (<i>on plan commencement & ongoing</i>)</p> | <p>All timber production ceased in these areas as at year 1 (2004). DEC continues to manage the land in accordance with the requirements for the intended land category as detailed in Appendix 2.</p> |
| <p>1.3 The Department will cooperate with the Departments of Environment and Planning and Infrastructure and other agencies in relation to the establishment of a comprehensive, adequate and representative reserve system outside the RFA area, through Bush Forever or similar programs. (<i>on plan commencement & ongoing</i>)</p> | <p>DEC continues to work with the Department for Planning and Infrastructure and other agencies to implement the Bush Forever Program.</p> <p>The Swan Bioplan project (commenced 2005 for a period of two years) continued through 2006. This survey will help identify areas for addition to the formal conservation reserve system.</p> |

Biological diversity

| 2. FOREST CONSERVATION AREAS | |
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| The plan proposes the following Actions at the whole of forest scale for the purpose of seeking to complement the function of the formal reserve system in the conservation of biodiversity: | |
| 2.1 | <p>The Department will initiate the processes required for the land classification changes proposed by the plan. <i>(in year 1 & ongoing)</i></p> |
| | <p>Priority has been given to implementing the land category changes proposed by the FMP. The land classification changes this Action requires will be progressed when the land category changes are complete.</p> |
| 2.2 | <p>The Department will manage the areas proposed by Appendix 2 to be classified as forest conservation areas consistently with their proposed classification and purpose and relevant Departmental policies until such time as they are formally classified. Timber production in these areas will not be permitted, but other productive activities not involving harvesting of sawlogs or other residue logs may be allowed. <i>(on plan commencement & ongoing)</i></p> |
| | <p>As at year 1 (2004) all timber harvesting on lands managed by DEC, and lands proposed for reclassification as forest conservation areas, ceased.</p> |
| 2.3 | <p>The Department in consultation with the Conservation Commission will consider classifying all areas of old-growth forest outside the formal reserve system as forest conservation areas to improve their long-term security of classification. <i>(in year 1 & end of year 1)</i></p> |
| | <p>In 2004 the Conservation Commission and the Minister endorsed DEC's recommended approach to classifying, as forest conservation areas, those areas of old-growth forest outside the formal reserve system. The recommendation specifically related to larger areas of old growth forest.</p> <p>An analysis of the areas of old-growth forest 100 ha and over was completed in late 2005 and refined in early 2006. Field checks of areas which are suitable to be classified as a Forest Conservation Area will be made in time for the selected old-growth forest areas to be included with Action 2.1.</p> |

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3. INFORMAL RESERVES

The plan establishes informal reserves described in Appendix 3 and proposes the following Actions at the operational scale for the purpose of seeking to conserve biodiversity outside of formal reserves and forest conservation areas:

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| <p>3.1 The Department and the Forest Products Commission will conduct their operations within the informal reserves established by Appendix 3:</p> <p>3.1.1 in a manner that has regard to the requirements set out in Appendix 3 where the operation occurs prior to the approval of the Guidelines referred to in the following paragraph (<i>on plan commencement & end of year 1</i>); and</p> <p>3.1.2 in accordance with the Guidelines for the Management of Informal Reserves which are to:</p> <ul style="list-style-type: none"> • be prepared by the Department with public consultation; • provide for the manner in which the requirements of Appendix 3 are to be met; and • be submitted to the Conservation Commission for advice and approved by the Minister for the Environment by 31 December 2004, when they will take effect and supercede Appendix 3. | <p>The requirements of Appendix 3 were implemented for the management of informal reserves. Checking compliance with the FMP requirements to protect informal reserves is a component of Departmental operational audits and is reported in the Department's Annual Report. The four new informal reserve categories, including old-growth forest, were implemented in all operations that commenced in 2006.</p> <p>The Commission managed its limited operations within informal reserves in line with Appendix 3 requirements. Where operations were planned and conducted adjacent to informal reserves, appropriate procedures and approvals by the Department were adhered to (except those incidents reported in the Forest Products Commission's environmental management system (EMS)).</p> <p>Eleven EMS incidents reported unauthorised machine entry or felling of some trees in informal reserves. In most cases this involved activity in 60 metre wide stream zones, none of which was significant in extent or impact.</p> <p>The guidelines for the Management of Informal Reserves have not been completed. DEC has been progressively developing the more complex components of the guideline and publishing them in an interim form as Advisory Notes. Two Advisory Notes (Blade-up Access on State Forest and Timber Reserves and Management of Access in Informal Reserves and Other Protected Areas Within State Forest and Timber Reserves) were published in 2006. A third Advisory Note (Salvage of Logs in Association with Informal Reserves) is well developed. These Advisory Notes will form part of the guidelines. A framework for the guideline for the Management of Informal Reserves has been developed.</p> |
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| <p>3.2 The Conservation Commission will:</p> <p>3.2.1 assess whether any areas available for timber harvesting which were classified as old-growth forest in the Department's corporate database in 1997, but which are not classified as old-growth forest on the date of the commencement of this plan, should be reclassified as old-growth forest (<i>in year 1 & ongoing</i>);</p> <p>3.2.2 prepare with public consultation an assessment process and field assessment criteria, (<i>in year 1 & ongoing</i>) which will:</p> <ul style="list-style-type: none"> • be based on the Department's current approach to the application of the criteria for classification of land as old-growth forest in the Department's corporate database; • include a process for persons to request the Conservation Commission to assess whether areas on an indicative timber harvest plan referred to in Action 11.5 should be classified as old-growth forest in the Department's corporate database, and for the Conservation Commission to determine whether such an assessment is warranted; and • be made publicly available. <p>3.2.3 publish the reasons for altering or confirming an area's classification in the Department's corporate database after it has been assessed by the Conservation Commission. (<i>in year 1 & ongoing</i>)</p> | <p>In December 2005 the Conservation Commission published <i>Assessment criteria and process for the Conservation Commission review of old-growth amendments</i>. Since the completion of the assessment criteria and process the Conservation Commission has applied them to the areas classified as old-growth forest in the Department's corporate database in 1997, but which were not classified as old-growth forest at the commencement of the FMP.</p> <p>The findings of the Conservation Commission's old-growth forest assessments have been published on its website.</p> |
| <p>3.3 Where the Conservation Commission advises the Department that it has assessed that land not currently classified as old-growth forest should be reclassified as old-growth forest, the Department will amend the Department's corporate database in accordance with the Conservation Commission's assessment. (<i>in year 1 & ongoing</i>)</p> | <p>The Conservation Commission, in its survey, identified a number of areas that required classifying as old-growth forest. DEC has amended the relevant data set in its database to capture the changes.</p> |
| <p>3.4 The Forest Products Commission will not undertake any timber production in any area:</p> <p>3.4.1 referred to in Action 3.2.1; or</p> <p>3.4.2 for which the Conservation Commission has determined an assessment of whether the area should be classified as old-growth forest on the Department's corporate database to be warranted;</p> <p>until the Conservation Commission has assessed the area and confirmed the classification of that area in the Department's corporate database as other than old-growth forest. (<i>on plan commencement & ongoing</i>)</p> | <p>Areas relevant to Action 3.2.1 that are identified in coupe planning are excluded from timber production. The Conservation Commission has not identified any areas under 3.4.2.</p> <p>There were no harvesting activities undertaken by the Forest Products Commission in areas classified as old growth.</p> <p>One incident was recorded where an in-coupe road was cleared in the vicinity of forest that was in process of being evaluated for its potential to be classified as old growth, prior to that assessment being completed and without the Conservation Commission's authorisation. Outcomes of that formal old growth assessment were still being awaited at the end of the year.</p> |

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| 4. DIVERSITY IN VEGETATION STRUCTURE | |
| The plan proposes the following Actions at the landscape scale for the purpose of seeking to conserve biodiversity through a diverse representation and distribution of forest structures and understorey seral stages through time: | |
| 4.1 The Department will conduct its operations in a manner that has regard to Goals for Understorey Structural Diversity, which are to be: 4.1.1 prepared by the Department with public consultation; and 4.1.2 submitted to the Conservation Commission for advice and approved by the Minister for the Environment by 31 December 2005, when they will take effect. | DEC's Fire Management Service Branch has taken a lead role in the development of the Understorey Structural Diversity goals. Progress continued throughout 2006 on developing a methodology for fire management to promote and maintain biodiversity inline with DEC's Fire Management Policy (Policy 19). Key components have been identified and it is anticipated that these will be 'tested' through 2007. |
| 4.2 The Department will monitor its operations to identify the extent to which the Goals for Understorey Structural Diversity are being achieved and publish a report of the results of that monitoring. <i>(in year 5 & ongoing)</i> | Action to be reported against in year 5 (2008). |
| 5. INTEGRATING FOREST MANAGEMENT | |
| The plan proposes the following Actions for the purpose of seeking to promote integrated management across all land categories at the whole of forest, landscape and operational scales: | |
| 5.1 The Conservation Commission will cooperate with the Department of Industry and Resources and mining and petroleum companies in relation to forest management and encourage them to act in a manner that is consistent with the plan. <i>(in year 1 & ongoing)</i> | The Conservation Commission works with the Department of Industry and Resources and mining and petroleum companies with regard to any project involving land vested in the Conservation Commission, including forest areas. The Conservation Commission endeavours to ensure projects are undertaken having regard to best practice environmental management, including forest management in accordance with the FMP. |
| 5.2 The Conservation Commission will prepare by 31 December 2004, guidelines for the preparation of other management plans in a manner that integrates with existing management plans, including this plan. | Early in their development it was recognised that these guidelines will be more useful if broadened to address management for terrestrial conservation reserves throughout the state, rather than just the south-west forest region. Accordingly, the scope has been expanded so that the guidelines will provide a strategic framework for planning the management of conservation reserves across Western Australia. Interim guidelines were released in mid 2006. |

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| 6. OPERATIONS AND THE CONSERVATION OF FLORA | |
| The plan proposes the following Actions at the operational scale for the purpose of seeking to reduce the extent of the threat to the diversity and abundance of flora from silvicultural operations that are designed to reduce competition between understorey and commercial species: | |
| 6.1 | The Department will undertake the measures identified in Appendix 13 (which relate to the protection of significant flora values). <i>(in year 2 & ongoing)</i> |
| 6.2 | The Forest Products Commission and its agents will conduct its silvicultural operations <i>(on plan commencement & ongoing)</i> : 6.2.1 in accordance with the Department's Silviculture Guidelines; and 6.2.2 prior to the formal incorporation of the amendments identified in Appendix 5 into those Guidelines, in a manner that is consistent with those amendments. |
| | <p>The significant flora values identified in Appendix 13 continued to be managed according to principles outlined in Regional Wildlife Management Programs (Flora) throughout 2006. DEC revised planning checklists for disturbance activities to address management requirements for significant flora values.</p> <p>Approximately 8,000 hectares (ha) of native jarrah forest was treemarked during 2006. Of the area marked, and including some areas marked in 2005, 7830 ha were harvested. In addition 300 ha of wandoo forest was harvested. The silvicultural recording system (SILREC), managed on the Forest Products Commission's behalf by the Department, recorded the following scale of silvicultural activities relating to regeneration: jarrah burns – 4290 ha; karri burns – 570 ha; planting and rehabilitation jarrah and karri – 670 ha; shelterwood preparation – 1650 ha; survey and assessment: 1137 ha.</p> <p>Two incidents relating to silvicultural burns being conducted outside of prescribed guidelines were recorded in the Forest Products Commission's EMS, along with one where excessive numbers of potential habitat trees were marked for retention, resulting in a review of standards for marking to maximise merchantable trees available whilst meeting retention requirements.</p> |
| 7. RETENTION OF HABITAT ELEMENTS IN HARVESTING OPERATIONS | |
| The plan proposes the following Actions at the landscape scale for the purpose of seeking to prevent any species moving to a higher category of threat or, in particular, declining to irretrievably low levels as a result of management actions: | |
| 7.1 | The Department will publish a map by 1 January 2004 showing locations of indicative fauna habitat zones. |
| | Completed Refer to Action 7.2. |

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| <p>7.2 The Department may change the locations and areas of indicative fauna habitat zones in a manner that:</p> <p>7.2.1 has regard to the criteria specified in Appendix 4, where the change occurs prior to the approval of the Guidelines referred to in the following paragraph (<i>on plan commencement & end of year 1</i>); and</p> <p>7.2.2 is in accordance with Guidelines for the Selection and Management of Fauna Habitat Zones, (<i>in year 2 & ongoing</i>) which are to be:</p> <ul style="list-style-type: none"> • prepared by the Department with public consultation; and • submitted to the Conservation Commission for advice and approved by the Minister for the Environment by 31 December 2004, when they will take effect and supercede Appendix 4. | <p>The Department has been complying with the criteria as specified in Appendix 4. The final location and size of zones is being progressively determined in advance of disturbance operations. The Department refers the proposed final location and size of fauna habitat zones (FHZ) to the Conservation Commission for their advice prior to implementation in the field. The Conservation Commission receives advice from the voluntary conservation movement. As at 31 December 2005, 18 FHZ had been finalised. An updated map of indicative and final FHZ (completed as at 30 June 2005) was published on NatureBase.</p> <p>A draft process for the component of the guidelines dealing with FHZ selection is near finalisation, however, further work is required on drafting the management component. An audit of FHZ finalisation during the year identified and made recommendations on a number of issues with the finalisation process that will be addressed in the guideline.</p> <p>It is anticipated that the selection component of the guidelines will be released for public comment by the end of 2007.</p> <p>Implemented and ongoing</p> <p>In finalising FHZ boundaries, DEC continues to comply with the objective as detailed in Appendix 4. 18 FHZ were finalised during 2006. Maps depicting indicative and finalised FHZ to 30 June 2006 are published to the website NatureBase.</p> <p>Ongoing fine tuning of the FHZ guidelines occurred through 2006 as a result of experience gained in the finalisation of FHZ boundaries during 2006.</p> |
| <p>7.3 By 30 June 2004 the Department, in consultation with the Conservation Commission, will complete a review of the location of indicative fauna habitat zones having regard to the criteria specified in Appendix 4, with a view to making appropriate changes to those locations under Action 7.2.1.</p> | <p>This Action has been completed.</p> <p>Completed</p> <p>The location of all indicative FHZ was reviewed within year 1 (2004). A map of indicative FHZ was published on the Department's Naturebase web site.</p> |
| <p>7.4 The Department and Forest Products Commission will conduct their operations in indicative fauna habitat zones, and in fauna habitat zones established under Appendix 4 and the Guidelines for the Selection and Management of Fauna Habitat Zones (<i>on plan commencement & ongoing</i>):</p> <p>7.4.1 in a manner that has regard to the requirements set out in Appendix 4, where the operation occurs prior to the approval of the Guidelines; and</p> <p>7.4.2 in accordance with the Guidelines after they are approved and supercede Appendix 4.</p> | <p>The department and the Forest Products Commission continued to conduct their operations around Fauna Habitat Zones in a manner consistent with the requirements detailed in Appendix 4. Audits of timber harvesting carried out in 2006 recorded no major or minor incursions in FHZ.</p> <p>One minor disturbance incident was reported to the Commission where a blade-up skidder was driven a short distance inside a FHZ.</p> |

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| 8. THREATENED AND PRIORITY SPECIES AND ECOLOGICAL COMMUNITIES | |
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| The plan proposes the following Actions at the landscape scale for the purpose of seeking to protect, and assist the recovery of, threatened and priority species of flora and fauna and ecological communities: | |
| <p>8.1 The Department will maintain a list identifying threatened and priority species of flora and fauna and threatened ecological communities. (Threatened species and communities are those under risk of extinction. Priority species and communities are those that may be threatened but for which there are insufficient survey data, and those that are rare but not threatened). <i>(on plan commencement & ongoing)</i></p> | <p>DEC continues to maintain lists of threatened and priority species of flora and fauna and threatened ecological communities. The lists of flora and fauna were updated in June 2006 and again in December 2006. No further additions have been made to the list of threatened ecological communities, but the list of priority ecological communities were constantly maintained during the year.</p> <p>The Brush-tailed Phascogale was elevated, in December 2006, to the list of threatened fauna and will be the subject of a report to the Conservation Commission.</p> |
| <p>8.2 The Department and the Forest Products Commission will conduct their operations having regard to the Department's <i>Conservation of Endangered and Specially Protected Fauna in the Wild</i> policy and <i>Conservation of Threatened Flora in the Wild</i> policy. <i>(on plan commencement & ongoing)</i></p> | <p>The Department and the Forest Products Commission conducted their operations to ensure compliance with the Department's policies referred to in this action. No incidents were reported.</p> <p>An audit of timber harvesting carried out in 2006 found that the required actions to implement these policies were conducted.</p> |
| <p>8.3 The Department and Forest Products Commission will revise planning checklists to identify actions to be taken in specified circumstances in which declared rare flora species, threatened ecological communities, and other significant flora identified in Appendix 13 may be disturbed by their operations. <i>(in year 1 & end of year 2)</i></p> | <p>The Department has revised checklists and expanded the pre-operations checklist to address issues identified for a range of disturbance operations. The checklist has been field tested, was the subject of extensive consultation between DEC and the FPC and is now close to completion.</p> <p>The Forest Products Commission conducted further revision of its pre harvesting planning checklist in collaboration with the Department to address this action and other environmental planning processes.</p> |
| <p>8.4 The Forest Products Commission and the Department will undertake operations in accordance with guidelines for operations in the presence of fauna, to be developed as part of the Fauna Distribution Information System, which is to be completed by the Forest Products Commission <i>(on plan commencement & end of year 1)</i>:</p> <p>8.4.1 to the satisfaction of the Department; and</p> <p>8.4.2 in consultation with the Conservation Commission <i>(end Year 2)</i>.</p> | <p>The Fauna Distribution Information System (FDIS) was developed for predicting the likely occurrence of fauna that might be impacted by timber harvesting and prescribed burning. An audit of timber harvest coupes verified that FDIS had been used in planning.</p> <p>A number of management, custodial and data integrity matters have been identified which need clarifying prior to presenting the final FDIS to the Conservation Commission in 2007.</p> <p>The Forest Products Commission applied the currently approved version of the Fauna Distribution Information System (FDIS) in the planning and approval processes for Timber Harvesting operations.</p> |

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| <p>8.5 (Plantations): The Forest Products Commission will advise the Department of its harvesting and management activities within plantations: 8.5.1 where those activities may impact on threatened species and threatened ecological communities, agreed protection measures will be implemented. <i>(on plan commencement & ongoing)</i></p> | <p>The Forest Products Commission is currently conforming to this via the use of Pre-harvest Checklists (FPC444).</p> |
| <p>8.6 The Department will develop and implement recovery plans for selected threatened species and ecological communities, including: 8.6.1 the Western Shield fox baiting program (which seeks to reduce predation pressure on threatened and priority species of fauna). <i>(on plan commencement & ongoing)</i></p> | <p>There are 10 published and 3 draft Interim Recovery Plans (IRPs) for declared rare flora occurring in State forest or timber reserves within the area to which the FMP applies. The management of a further 15 declared rare flora which occur on these lands are covered in published regional flora management plans, and 4 in draft regional flora management plans. One IRP has recently been updated and one completed for Threatened Ecological Communities (TECs) that occur on land covered by the FMP. Another IRP for a Priority 1 community is also in late draft. Twelve Recovery Plans for threatened fauna are also current for land to which the FMP applies.</p> <p>All declared rare flora that occur in State forest or timber reserves within the area covered by the FMP are covered by Regional Flora Wildlife Management Programs (with the exception of those species that were listed after Wildlife Management Programs were endorsed).</p> <p>Recovery Plans were completed for Baudin’s Black-Cockatoo (<i>Calyptorhynchus baudinii</i>), Forest Red-tailed Black-Cockatoo (<i>Calyptorhynchus banksii naso</i>) and Muir’s Corella (<i>Cacatura pastinator pastinator</i>).</p> <p>N.B. A change in collating information has meant that the number of approved recovery plans and interim recovery plans has not been reported for 2006. The totals reported for year 2 (2005) are only relevant to State forest and timber reserves, however, it is anticipated that ongoing reporting on this Action will be for all lands vested in the Conservation Commission contained within the FMP boundary, as it was for as for year 1 (2004).</p> |

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| 9. INCREASING KNOWLEDGE | |
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| The plan proposes the following Actions at the whole of forest scale for the purpose of seeking to develop an improved understanding of the biodiversity of forest regions and the response of forest ecosystems to natural and human induced disturbance, with a view to improving forest management practices: | |
| <p>9.1 The Department will undertake biological surveys, which will be:</p> <p>9.1.1 of priority areas determined in consultation with the Conservation Commission (<i>by year 5 & ongoing</i>); and</p> <p>9.1.2 used, where appropriate, to assist in evaluating the extent to which biodiversity is being conserved and the need for any review of the reserve system (<i>as required & as required</i>).</p> | <p>No action during 2006. This action will be reported against by 2008.</p> |
| <p>9.2 The Department will:</p> <p>9.2.1 continue to monitor the effect of disturbance from timber harvesting on fauna and flora in the Kingston study² area (<i>on plan commencement & ongoing</i>);</p> <p>9.2.2 implement the species, community and process monitoring program, FORESTCHECK (<i>on plan commencement & ongoing</i>);</p> <p>9.2.3 conduct a monitoring trial using a specific species sampling approach and review the comparative effectiveness of this and the monitoring protocol adopted for FORESTCHECK since its inception in 2001 (<i>In year 2 & ongoing</i>); and</p> <p>9.2.4 maintain a research program on ecologically sustainable forest management which is prepared in a manner that has regard to advice from the Conservation Commission's Research Advisory Committee (<i>in year 1 & ongoing</i>).</p> | <p>Spotlight surveys on three transects in the Kingston study area were undertaken to determine trends in the populations of possums and other medium-sized mammals.</p> <p>A further 11 FORESTCHECK grids were established in Blackwood District bringing the total number to 48. Data from the Blackwood sites were summarised in a progress report released in Oct 2006.</p> <p>The FORESTCHECK operating plan was revised and made available on the internet in Nov 2006. Datasets have been compiled and validated in readiness for the 5 year review, which will result in a series of scientific papers.</p> <p>Science Division continued to implement a range of research addressing aspects of sustainable forest management including forest health, fire, silviculture and hydrology. Individual research project summaries are provided in the Annual Research Activity Report published by the Science Division in July 2006, available on the website NatureBase. This document also lists scientific publications prepared by staff of the Division. Notable developments include the second year of monitoring for stream invertebrate biodiversity (FMP KPI 20) initiated in year 2 (2005), development of a paper describing options for forest health monitoring, and publication of a paper on the use of electromagnetic resistance to assess stream salinity in forest catchments. This latter project relates to a Ministerial Condition placed on the FMP 1994 - 2003.</p> |

² A major interdisciplinary research study by the Department located in jarrah forest in Kingston and surrounding forest blocks north-east of Manjimup, to examine the impact of native forest silvicultural practices on flora and fauna.

Productive capacity

| FOREST MANAGEMENT PLAN ACTION | IMPLEMENTATION STATUS |
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| 10. MAINTAINING FOREST AREA | |
| The plan proposes the following Actions for the purpose of seeking to maintain the net area of forested land: | |
| <p>10.1 The Conservation Commission and the Department will make submissions in relation to development proposals forwarded to them for comment or advice, <i>(as required & as required)</i> with a view to:</p> <p>10.1.1 seeking to reduce the permanent loss of forested areas as a result of development;</p> <p>10.1.2 seeking the replacement of forested areas permanently lost to development;</p> <p>10.1.3 promoting the construction of infrastructure such as roads, pipelines and other utilities at common locations, such as infrastructure corridors; and</p> <p>10.1.4 reducing the impact of mining and petroleum operations on forested areas with a high productive capacity for timber production.</p> | <p>A primary objective of DEC is to avoid loss of forest values/areas when dealing with resource developers. For example, within the area covered by the FMP DEC provided comments on the planned expansion of the Worsley operations.</p> <p>DEC continues to seek offsets that replace values foregone where loss cannot be avoided.</p> <p>The co-location of infrastructure remains a primary consideration in the EIA process.</p> <p>DEC continues to discourage development in highly productive timber areas on State forest. However, significant mining rights exist through State Agreement Acts that have priority over the maintenance of forest values.</p> |
| <p>10.2 The Department will, where reasonable and practicable, construct roads in a manner and at a location that will service multiple needs. <i>(on plan commencement & ongoing)</i></p> | <p>New roads are constructed according to the provisions of area management plans and State forest timber harvesting plans. DEC liaises with the FPC with respect to the location of roads for timber harvesting.</p> <p>The report relating to the legal status of roads was finalised in 2006. Further progression of roading management is waiting for the finalisation of the inventory of existing roads being conducted by consultants to DEC.</p> <p>For the area covered by the FMP there were no significant road works, either from construction or upgrading, in 2006.</p> |
| <p>10.3 The Department will seek to progressively rehabilitate redundant roads. <i>(by year 5 & ongoing)</i></p> | <p>An inventory of roads is being compiled and a strategic plan to rehabilitate redundant roads is in development. This is expected to extend into year 4 (2007), prior to rehabilitation being undertaken.</p> <p>For the Swan Region only, as part of completion criteria for bauxite mining, there are arrangements in place with Alcoa (and more loosely with Worsley) whereby forest access plans are developed jointly to address which roads and tracks are to be retained and facilitate the closure of redundant roads. This is an ongoing process.</p> <p>This action is to be reported against in 2008.</p> |

Productive capacity

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| <p>10.4 (Plantations): The Forest Products Commission will maintain the minimum area of plantation estate required to meet State Agreement Act supply requirements by:</p> <p>10.4.1 replanting pines in all suitable areas of State forest and freehold (fee simple) land held in the name of the Executive Director that have previously been planted with pines and have been clearfelled, except at Gngalara, Peel, Hamel and other areas determined consistently with the agreement ratified under the Wood Processing (Wesfi) Agreement Act 2000 (<i>on plan commencement & ongoing</i>); and</p> <p>10.4.2 establish new plantations on appropriate cleared land to replace any plantation areas that are clearfelled but not replanted with plantation species (<i>as required</i>).</p> | <p>The Forest Products Commission is undertaking this replanting program at a rate of approximately 1500 hectares per annum. There are, in addition, approximately 2500 ha of fallow land.</p> <p>The Forest Products Commission planted approximately 936 ha on cleared land in the Mid West region in the 2006 financial year to replace approximately 502 ha clearfelled in the Swan supply cell.</p> |
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Productive capacity

11. SUSTAINED YIELD

The plan proposes the following Actions for the purpose of seeking to provide for timber production of jarrah and karri sawlogs on a sustained yield basis and to maintain the quality of the sustained yield calculations for the next plan period:

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| <p>11.1 The average annual yield of logs, calculated over the 10 year life of the plan, shall not exceed the maximum volumes stipulated in Tables 3 and 4, and given above for wandoo, blackbutt and sheoak. <i>(in year 1 & end of year 10)</i></p> | <p>The average annual yields of first and second grade sawlogs for jarrah and karri in the FMP are 131,000 cubic metres and 54,000 cubic metres respectively. The actual removals for 2006 totalled approximately 120,960 cubic metres (-7.6%) for jarrah and 60,430 cubic metres (+11.9%) for karri.</p> <p>The average annual sawlog volume harvested for the three years 2004, 2005 and 2006 was approximately 376,690 cubic metres (- 4.1%) and 168,710 cubic metres (+4.1%) for jarrah and karri respectively.</p> <p>For karri bole logs, other than first and second grade sawlogs the FMP provides for an average 117,000 cubic metres to be produced annually whereas the actual produced was approximately 164,500 cubic metres. The FMP provides for a programme of expanded first thinning in karri and jarrah forest that would not affect the sustained sawlog yields but makes available additional bole volume. The Forest Products Commission has expanded the karri first thinning programme resulting in the additional yield of other bole volume. The FPC has requested that the Conservation Commission review the possible inconsistency between these obligations in the FMP.</p> <p>Under the FMP 534,000 cubic metres of Jarrah bole may be produced annually. In 2006, 164,150 cubic metres was produced, which equates to less than a third of the volume permitted.</p> <p>For other species (marri, wandoo, blackbutt, sheoak) the respective sawlog volumes removed in 2006 were 12,200 cubic metres, 660 cubic metres, 700 cubic metres, and 430 cubic metres respectively, all less than the allowable volumes.</p> |
| <p>11.2 In addition to the yield referred to in 11.1, the Forest Products Commission may contract for the removal and sale of forest products of species other than jarrah, karri, marri, blackbutt, wandoo and sheoak that become available in small quantities from operations designed to produce the yield referred to in 11.1 or as a result of other operations such as mining. <i>(as required & as required)</i></p> | <p>Owing to the completion of clearing for a planned mining operation in a section of tuart forest near Ludlow, the Forest Products Commission handled and sold 572 cubic metres of tuart sawlogs and bole logs.</p> |

Productive capacity

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| <p>11.3 The Forest Products Commission will prepare annual timber harvesting plans that are to be <i>(on plan commencement & ongoing)</i>:</p> <p>11.3.1 developed in consultation with, and to the requirements of, the Department;</p> <p>11.3.2 consistent with the allowable timber yields referred to in Action 11.1; and</p> <p>11.3.3 made publicly available.</p> | <p>The annual <i>Indicative Timber Harvest Plan</i> was prepared in collaboration with the Department for each forest region for 2006. The total projected volumes made available under these plans were consistent with the allowable timber yields. The plans were made publicly available by the Forest Products Commission through public advertising, mail out to key stakeholders and on the FPC website. Feedback was invited and the local consultation undertaken where ever interest was indicated.</p> |
| <p>11.4 The Forest Products Commission and the Department will:</p> <p>11.4.1 monitor the volume of all timber log categories removed from native forest in each year, separately recording for each of the commercial species the equivalent volume of <i>(in year 1 & ongoing)</i>:</p> <ul style="list-style-type: none"> • first and second grade sawlogs; • lower grades of sawlogs; and • residue logs; and <p>11.4.2 periodically audit the grading and removal of sawlogs <i>(in year 1 & ongoing)</i>.</p> | <p>The Forest Products Commission through 2006 continued to record the volume of timber removed in the Logging Operations Information System (LOIS).</p> <p>Log grading standards were reviewed through a Forest Products Commission working group in 2006.</p> <p>During the year it was identified that agreement is needed between DEC and the FPC with respect to the aggregation of log product to adequately account for the volumes of timber removed. This will impact on the development of the protocol for KPI 5, which will continue into year 4 (2007).</p> <p>The 34 plots established through 2005 were maintained and monitored in 2006 collecting data on the level of sawlog removed and comparing it with that predicted from the strategic inventory.</p> |
| <p>11.5 The Department will prepare rolling three-year indicative timber harvesting plans <i>(in year 2 & ongoing)</i> that are to be:</p> <p>11.5.1 developed in consultation with the Forest Products Commission;</p> <p>11.5.2 consistent with the allowable timber yields referred to in Action 11.1; and</p> <p>11.5.3 made publicly available.</p> | <p>Following development in consultation with the FPC and completion of the public consultation period, the 3 year indicative harvest plan was published in 2006. Work was commenced on development of a 2008 to 2010 harvest plan.</p> |

Productive capacity

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| <p>11.6 The Forest Products Commission will conduct its silvicultural operations:</p> <p>11.6.1 in accordance with the Department's Silviculture Guidelines (<i>on plan commencement & ongoing</i>); and</p> <p>11.6.2 prior to the formal incorporation of the amendments identified in Appendix 5 into those Guidelines, in a manner that is consistent with those amendments (<i>on plan commencement & ongoing</i>).</p> | <p>Approximately 8,000 hectares (ha) of native jarrah forest was treemarked during 2006. Of the area marked, and including some areas marked in 2005, 7830 ha were harvested. In addition 300 ha of wandoo forest was harvested. The silvicultural recording system (SILREC), managed on the Commission's behalf by the Department, recorded the following scale of silvicultural activities relating to regeneration: jarrah burns – 4290 ha; karri burns – 570 ha; planting and rehabilitation jarrah and karri – 670 ha; shelterwood preparation – 1650 ha; survey and assessment: 1137 ha.</p> <p>Two incidents relating to silvicultural burns being conducted outside of prescribed guidelines were recorded in the Forest Products Commission's EMS, along with one where excessive numbers of potential habitat trees were marked for retention, resulting in a review of standards for marking to maximise merchantable trees available whilst meeting retention requirements.</p> |
| <p>11.7 Any amendment to the Silviculture Guidelines following the incorporation of the amendments identified in Appendix 5 into those Guidelines will be prepared by the Department with public consultation, submitted to the Conservation Commission for advice and approved by the Minister for the Environment before they take effect. (<i>as required & as required</i>)</p> | <p>No amendments were proposed for 2006. The review of jarrah and karri guidelines was deferred due to other priority work.</p> |
| <p>11.8 The Department and the Forest Products Commission will monitor and record the areas over which each different silvicultural treatment is achieved in each year. (<i>on plan commencement & ongoing</i>)</p> | <p>Monitoring and recording of the areas over which each different silvicultural treatment is implemented is ongoing. The Department's Forest Management Branch captures this information electronically in its SILREC/GIS program. Details are reported separately in the Annual Report for 2006-2007.</p> <p>For the calendar year 2006, karri areas regenerated after harvesting totalled 600 ha. In jarrah the area treated is related to what is reported in objective 6.2 above.</p> |
| <p>11.9 The Forest Products Commission will, where practicable and economically feasible, enter into contracts that are not confined to the supply of first and second grade sawlogs. For example, the Forest Products Commission may enter into contracts for the sale of bole sawlogs. When the Forest Products Commission enters into such a contract, the Forest Products Commission and the Department will calculate the equivalent volume of first and second grade sawlogs which would be derived from the volume of timber taken under the contract. (<i>on plan commencement & ongoing</i>)</p> | <p>The Forest Products Commission tendered and executed contracts with customers for the sale of jarrah third grade sawlogs totalling 6000 tonnes in 2006. A single private treaty contract for one customer was executed by the FPC, after two years of negotiation, for the sale of 111,600 tonnes of marri logs.</p> |

Productive capacity

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| <p>11.10 The Department may use forest produce that becomes available for use from the carrying out of operations to which section 33(1)(cb) of the CALM Act applies for the purposes of making improvements to any land to which the CALM Act applies. <i>(as required & as required)</i></p> | <p>Each Region covered under the FMP continued to use forest products as they became available to implement improvements to DEC managed lands. Examples include small scale capital works and maintenance projects such as the construction of picnic tables. For 2006 there were no major infrastructure projects where forest products were required.</p> |
| <p>11.11 The Department will continue to refine the data and methodology used for the sustained yield calculations <i>(on plan commencement & ongoing)</i> by: 11.11.1 Maintaining and enhancing the quality and coverage of the data sets, and the methodology, used in sustained yield calculations. In doing this the Department will have regard to the recommendations of the Ferguson Panel's Stage 1 and 3 reports (Ferguson et al. 2001, 2003).</p> | <p>The Department continued to update and maintain the integrity of the data used for the calculation of sustainable timber yields.</p> |
| <p>12. EXOTIC SPECIES ON STATE FOREST AND TIMBER RESERVES The plan proposes the following Action for the purpose of seeking to achieve the optimum yield in production on State forest and timber reserves planted with exotic species consistent with the satisfaction of long-term social and economic needs:</p> | |
| <p>12.1 (Plantations): The Forest Products Commission will harvest exotic species on State forest and timber reserves to supply up to 1.2 million cubic metres per annum of various log products to industry. <i>(on plan commencement & ongoing)</i></p> | <p>The total volume of exotic species delivered in the 2006 financial year was below 1.2 million cubic metres. This includes deliveries from land held in the name of the Department's Executive Director. Total volume of softwood delivered including that from Executive Director land was a combined total of 915,532 cubic metres.</p> |

Productive capacity

| 13. OTHER FOREST PRODUCE | |
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| <p>The plan proposes the following Actions for the purpose of seeking to manage the removal of forest produce, other than sawlogs and residue logs, in a manner that, so far as is practicable and sustainable, satisfies public demand for that produce:</p> | |
| <p>13.1 The Department will:</p> <p>13.1.1 regulate the supply of forest produce, other than sawlogs, residue logs, and craftwood ('other forest produce') through the administration of licensing legislation (<i>on plan commencement & ongoing</i>);</p> <p>13.1.2 maintain and, where appropriate, prepare guidelines for the management of other forest produce (<i>by year 5 & ongoing</i>) that:</p> <ul style="list-style-type: none"> • are to be periodically reviewed, with public consultation, and • in the case of new guidelines or revisions to guidelines, are to be submitted to the Conservation Commission for advice and approved by the Minister for the Environment before they take effect; <p>13.1.3 where reasonable and practicable, monitor supply patterns for signs of non-sustainability (<i>by year 5 & ongoing</i>); and</p> <p>13.1.4 facilitate the salvage of forest produce generated by management actions the primary purpose of which is not timber production, or natural events where salvage activities can contribute to rehabilitation and do not significantly increase the level of disturbance or the risk of environmental impacts to the forest area (<i>as required & as required</i>).</p> | <p>The supply of other forest produce was administered through the existing licence systems. Work continued on the amendments to the <i>Forest Management Regulations 1993</i> relating to the administration and management of apiary sites. In the meantime, the permit system for the use of land, to which the FMP applies, by apiarists, continues to be administered. The amendments will provide for the trading of apiary sites and increased apiary site rentals.</p> <p>No guideline for the management of other forest produce was developed.</p> <p>Action 13.1.3 will be reported against after 2008.</p> <p>DEC identified a number of matters requiring agreement with the FPC with respect to the salvage of forest produce not generated from timber production. Within the South West Region there were significant jarrah salvage operations (Dons Road) associated with storm blow-down. Within the Swan Region salvage of forest produce occurred in areas which were 'pushed down' to aid in the suppression operations of Perth Hills fires, 55 and 65. The timber was primarily used for rehabilitation of fire affected DEC recreation sites and other infrastructure.</p> |
| <p>13.2 The Department and the Forest Products Commission will work together to review the regulation of access to craftwood (<i>in year 1 & end of year 1</i>), which:</p> <p>13.2.1 if considered reasonable and practicable will be through production contracts issued under the FP Act for areas of State forest and timber reserves (whether or not those areas are identified in timber harvesting plans proposed by Action 11.3).</p> | <p>During 2006 access to craftwood and feature grade logs continued through the use of periodic auctions at Harvey. Access to craftwood was also available through the issue of minor production contracts. No further review of access to craftwood was considered necessary.</p> |
| <p>13.3 The Department will conduct research and undertake public consultation with a view to determining the environmental management requirements for the production of domestic firewood. (<i>in year 2 & ongoing</i>)</p> | <p>A pilot study investigating the removal of firewood in the Swan Region has been undertaken. The results suggest that a significant amount of firewood is being removed without a permit, or without strict compliance with permit conditions. A significant amount of firewood removal (more than 30 per cent) was from outside of gazetted firewood areas. When finalised, the report will be used to develop management strategies to address the illegal removal of firewood.</p> |

Productive capacity

14. WEEDS, PESTS AND DISEASES

The plan proposes the following Actions at the operational scale for the purpose of seeking to reduce the impact of weeds, pests and diseases on the productive capacity of the forest:

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| <p>14.1 In addition to the measures referred to in Action 18.4, the Department will:</p> <p>14.1.1 establish a process for the identification and investigation of weed, pest and disease outbreaks that threaten productivity (<i>in year 2 & end of year 2</i>); and</p> <p>14.1.2 where appropriate, prescribe measures in Silviculture Guidelines to limit the impact of weeds, pests and diseases on productivity (<i>as required & as required</i>).</p> | <p>DEC continues to maintain records at a District level of 'Declared' and major environmental weeds, including any new or significant weed incursions identified on DEC managed land.</p> <p>As yet, there is no standard register in place. A scoping paper has been prepared on options for the development of a methodology to monitor forest health and for the maintenance of an up-to-date register of forest condition; presence of weeds, pests and diseases of concern; and the status of their severity on State forest and timber reserves.</p> <p>Treatment of weeds continued in the area of the FMP through funding provided from SFM and Nature Conservation and some additional funding obtained through the 'Saving our Species' program.</p> |
| <p>14.2 (Plantations): The Forest Products Commission will:</p> <p>14.2.1 maintain an early warning system for Sirex in pine plantations (<i>on plan commencement & ongoing</i>); and</p> <p>14.2.2 monitor weeds, pests and diseases affecting productivity and, where reasonable and practicable, take measures to control them (<i>on plan commencement & ongoing</i>).</p> | <p>The Forest Products Commission maintains a monitoring program for Sirex in pine plantations. It also has a more general monitoring program for other weeds, pests and diseases.</p> |

Productive capacity

| 15. REGENERATION AND REHABILITATION OF DISTURBED FOREST | |
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| <p>The plan proposes the following Actions for the purpose of seeking to regenerate or rehabilitate disturbed forest so as to maintain the productive capacity, flora composition and structural attributes of that forest in the long term:</p> | |
| <p>15.1 The Forest Products Commission will conduct regeneration operations in a manner that:</p> <p>15.1.1 is in accordance with the Department's Silviculture Guidelines (<i>on plan commencement & ongoing</i>); and</p> <p>15.1.2 prior to the formal incorporation of the amendments identified in Appendix 5 into those Guidelines, is consistent with those amendments (<i>on plan commencement & ongoing</i>).</p> | <p>The Commission conducts its regeneration operations in accordance with this action item. As reported in 11.8 above, karri regeneration was established through planting on 600 ha of forest. All areas of jarrah/wandoo forest harvested in the previous year were at various stages in the regeneration cycle. As reported in action item 6.2, there were two incidents recorded in the EMS associated with silvicultural burning and one associated with marking of potential habitat trees.</p> |
| <p>15.2 The Forest Products Commission will pursue additional markets for log categories that have traditionally been under-utilised, particularly lower grade jarrah and karri sawlogs and marri sawlogs. (<i>on plan commencement & ongoing</i>)</p> | <p>The Forest Products Commission is actively seeking additional markets for lower grade log products.</p> <p>The Forest Products Commission tendered and executed contracts with customers for the sale of jarrah third grade sawlogs totalling 6000 tonnes in 2006. A single private treaty contract for one customer was executed by the FPC, after two years of negotiation, for the sale of 111,600 tonnes of marri logs.</p> |
| <p>15.3 The Department will cooperate with industry and Government agencies in the rehabilitation of areas subject to mining and petroleum activities, including extraction of gravel and sands, by:</p> <p>15.3.1 recommending, where practicable and economically feasible, the inclusion of a formal requirement for the rehabilitation of areas subject to those activities (<i>as required & as required</i>).</p> | <p>Formal rehabilitation requirements are consistently applied in areas subject to mining and petroleum activities, including the extraction of gravel and sands. DEC continues to liaise with mining and industry groups to progressively carry out rehabilitation operations.</p> <p>Through the 2006/2007 financial year rehabilitation of legacy gravel pits identified as a priority during a 2005 inventory was initiated. It is expected that this activity will be ongoing in 2007, subject to funding and resources.</p> |

Productive capacity

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| <p>15.4 (Plantations): The Forest Products Commission will:</p> <p>15.4.1 regenerate areas of plantation that are clearfelled and are to be replanted with exotic species, in accordance with the Forest Products Commission's Plantation Management Guidelines (<i>on plan commencement & ongoing</i>);</p> <p>15.4.2 rehabilitate the native vegetation in areas of plantation that are clearfelled and are not to be replanted with exotic species, in accordance with Guidelines for the Rehabilitation of Plantation Areas that are to be:</p> <ul style="list-style-type: none"> • developed by the Department with public consultation; and • submitted to the Conservation Commission for advice and approved by the Minister for the Environment before they take effect (<i>as required & as required</i>); and <p>15.4.3 where regeneration or rehabilitation operations do not result in regeneration or rehabilitation to a standard specified in the relevant guidelines, investigate the cause and if necessary, repeat the regeneration or rehabilitation operations in order to achieve that standard (<i>on plan commencement & ongoing</i>).</p> | <p>All plantations replanted in 2006 were established as per the Forest Products Commission's plantation management guidelines. A total area of approximately 1,700 ha of plantation was clearfelled, with approximately 1500 ha replanted.</p> <p>The Department is developing guidelines for the rehabilitation of plantation areas.</p> <p>Parts of the Murray Valley plantation are affected by this action. DEC and FPC are yet to reach an agreement on the allocation of responsibility for rehabilitation. DEC has undertaken some work on a guideline for Murray Valley, but anticipates that guidelines required by this Action will need to be developed on a case by case basis rather than as a single document.</p> |
| <p>16. MANAGEMENT OF REGROWTH STANDS The plan proposes the following Actions for the purpose of seeking to realise the productive capacity of the forest:</p> | |
| <p>16.1 The Forest Products Commission and the Department will:</p> <p>16.1.1 maintain records of the history of silvicultural treatments applied to stands of trees (<i>on plan commencement & ongoing</i>);</p> <p>16.1.2 develop schedules of future silvicultural treatments for stands of trees to promote growth of timber that can be used to produce sawlogs (<i>on plan commencement & ongoing</i>);</p> <p>16.1.3 assess stand development when silvicultural treatments are scheduled, with a view to determining whether those treatments are then required (<i>on plan commencement & ongoing</i>);</p> <p>16.1.4 undertake or reschedule those proposed silvicultural treatments, according to the assessment referred to in Action 16.1.3 (<i>on plan commencement & ongoing</i>); and</p> <p>16.1.5 report to the Conservation Commission every two years after the commencement of the plan on the extent to which these scheduled silvicultural treatments have been undertaken (<i>in year 2 & ongoing</i>).</p> | <p>DEC continues to record the spatial extent and silvicultural objective of treatments in line with the requirements of this Action. Statistics are compiled for financial year reporting and will be included in the 2006/2007 Annual Report.</p> <p>SILREC was utilized by the Forest Products Commission, along with rigorous field evaluation, to instruct on silvicultural treatment schedules for forest areas requiring attention according to FMP guidelines.</p> <p>Karri regrowth stands are scheduled for thinning according to the assumptions in the sustainable yield calculations, which are incorporated into the three-year and annual timber harvest plans.</p> <p>No rescheduling of proposed silvicultural treatments has occurred to date.</p> |

Ecosystem health and vitality

| FOREST MANAGEMENT PLAN ACTION | IMPLEMENTATION STATUS |
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| <p>17. FIRE</p> <p>The plan proposes the following Actions at the whole of forest and landscape scale for the purpose of seeking to use and respond to fire in a manner that:</p> <ul style="list-style-type: none"> • optimises the maintenance of forest ecosystem health and vitality; • promotes the conservation of biodiversity; • controls adverse impacts of fire on the social, cultural and economic values of land managed by the Department and adjoining land; and • <u>minimises the risk of smoke emanating from prescribed burns impacting on population centres and other sensitive areas.</u> | |
| <p>17.1 The Department will:</p> <p>17.1.1 maintain a competent fire management, suppression and response capability (<i>on plan commencement & ongoing</i>);</p> <p>17.1.2 prepare and maintain a fire management plan and smoke management guidelines (<i>in year 1 & ongoing</i>);</p> <p>17.1.3 undertake an annual prescribed burning program in a manner that:</p> <ul style="list-style-type: none"> • is in accordance with the fire management plan; • is in accordance with the smoke management guidelines; • has regard to the Goals for Understorey Structural Diversity referred to in Action 4.1; and • considers any special vulnerability of fauna and flora known to exist in a particular area to burning in that area (<i>on plan commencement & ongoing</i>); and <p>17.1.4 consult with stakeholders and interested community members in a manner that seeks to develop community understanding of and support for, and enable constructive discussions and deliberations on, the planning and implementation of prescribed burning and other fire management programs (<i>on plan commencement & ongoing</i>).</p> | <p>The department continues to maintain a competent fire management, suppression and response capability, fire management plan, and smoke management guidelines.</p> <p>Prescribed burning was undertaken in accordance with the fire management plan and smoke management guidelines. Vulnerable fauna are identified using FDIS and, where necessary, field checks.</p> <p>The six season prescribed burn plan was published in August 2006 for public consultation. Targeted community consultation occurs on an ongoing basis with respect to 'local' burning programs.</p> |

Ecosystem health and vitality

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| <p>17.2 The Forest Products Commission will:</p> <p>17.2.1 undertake an analysis of the risk from fire to its native timber production resources (<i>in year 2 & end of year 2</i>); and</p> <p>17.2.2 provide to the Department funding sufficient to enable the Department to control the risk to acceptable levels, so far as is reasonable and practicable (<i>on plan commencement & ongoing</i>).</p> | <p>Following commencement in 2004 of a joint Forest Products Commission / Departmental analysis of the risk from fire to the karri regrowth resource, no substantial progress has been achieved due to the unavailability of resources.</p> <p>For 2006/2007 financial year Government changed the funding arrangements such that DEC received a consolidated revenue fund allocation for fire management that had previously been directly funded by FPC.</p> |
| <p>17.3 The Department and the Conservation Commission will:</p> <p>17.3.1 participate in the proposed public review of fire management by the Environmental Protection Authority (<i>on plan commencement & end of year 1</i>); and</p> <p>17.3.2 incorporate the recommendations made in the review that are endorsed by the Minister for the Environment into the Department's fire management policy, plan (see Action 17.1.2) and fire management guidelines (<i>in year 2 & end of year 2</i>).</p> | <p>This action has been implemented. The State Government endorsed DEC's fire management review in July 2005. The review included an internal review, and scientific and community forums. A revised fire management policy (Policy 19) was published in late year 2 (2005).</p> |
| <p>17.4 (Plantations): The Forest Products Commission will:</p> <p>17.4.1 undertake an analysis of the risk from fire to its plantation timber production resources (<i>in year 2 & end of year 2</i>);</p> <p>17.4.2 undertake an analysis of the risk from fire emanating from its plantations moving into surrounding land (<i>in year 2 & end of year 2</i>); and</p> <p>17.4.3 cooperate with the Department and other organisations in seeking to control the risks to acceptable levels, so far as is reasonable and practicable (<i>on plan commencement & ongoing</i>).</p> | <p>Assessment and audit of the Forest Products Commission's plantation asset risk is still to be completed. The Forest Products Commission cooperates with the Department and other organisations to control the risks from fire associated with plantations as far as is reasonable and practicable.</p> <p>DEC produced a Wildfire Threat Analysis for plantations managed by the FPC in August 2006.</p> <p>State Government allocated an additional \$0.6M to the DEC for plantation fire protection works in 2006/2007 and ongoing. This funding had previously been provided by the FPC</p> |

Ecosystem health and vitality

| 18. WEEDS, PESTS AND DISEASES | |
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| <p>The plan proposes the following Actions at the operational scale for the purpose of seeking to:</p> <ul style="list-style-type: none"> • minimise, as far as is reasonable and practicable, the impact on the health and vitality of forest ecosystems of pathogens and their associated diseases; • protect from infestation those areas currently free from <i>P. cinnamomi</i>; and • control weeds and pests in forest ecosystems. | |
| <p>18.1 The Conservation Commission will develop a whole of Government policy framework for the management of dieback. (<i>in year 1 & end of year 1</i>)</p> | <p>The Conservation Commission continued to contribute to the development of a whole of Government policy for the management of dieback through the Government's dieback response group, established in March 2004.</p> |
| <p>18.2 The Department and the Forest Products Commission will conduct their operations having regard to the Management of Phytophthora and Disease Caused By It policy and in accordance with Volume 1 of the Phytophthora cinnamomi and Disease Caused by It Guidelines (<i>on plan commencement & ongoing</i>), which:</p> <p>18.2.1 will be reviewed by the Department with public consultation by 31 December 2008; and</p> <p>18.2.2 in the case of a new policy or Guidelines, or revisions to the policy or Guidelines, will be submitted to the Conservation Commission for advice and approved by the Minister for the Environment before they take effect (<i>as required & as required</i>).</p> | <p>The Conservation Commission accepted CALM Policy No.3 <i>Phytophthora cinnamomi</i> with the qualification that it be an interim policy. DEC continues to comply with the intent of the revised policy and guidelines. Compliance with <i>Phytophthora</i> hygiene requirements is constantly checked. An audit of dieback hygiene management was undertaken in 2006 and DEC staff issued 3 Works Improvement Notices and 2 Management Letters related to dieback hygiene management for 2005/2006 financial year.</p> <p>The Forest Products Commission has been conducting its operations having regard to the requirements of this action. Seven incidents related to this action were recorded in 2006 in the Forest Products Commission's EMS. Four of these involved machines crossing hygiene boundaries, with one incident comprising inadequate recording of clean-downs and the other three related to road or shunt clearing operations contrary to approved arrangements. The latter drew the aforementioned Management Letters from the department. One of these three incidents involved an area of less than 100 square metres. The others were insignificant in scale and of low impact.</p> |
| <p>18.3 The Department will:</p> <p>18.3.1 prepare an inventory of sites where the impact of <i>P. cinnamomi</i> on the vegetation is known to have been high, with a view to setting priorities for the regeneration or rehabilitation of those areas (<i>in year 2 & end of year 5</i>); and</p> <p>18.3.2 further develop dieback spread and impact models, including models relating to the effects of new infections (<i>in year 5 & end of year 10</i>).</p> | <p>No action regarding the preparation of an inventory of <i>P. cinnamomi</i> infected sites occurred in 2006</p> <p>Work has commenced on computer algorithms and data acquisition of spread of dieback in additional sites. This work is at a very preliminary stage and will require revision through year 4 (2007).</p> |

Ecosystem health and vitality

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| <p>18.4 The Department will:</p> <p>18.4.1 maintain records of weeds, pests and diseases that are known to have a significant impact on the health and vitality of forest ecosystems (<i>on plan commencement & ongoing</i>);</p> <p>18.4.2 develop and implement weed, pest and disease control programs (<i>on plan commencement & ongoing</i>);</p> <p>18.4.3 eradicate, wherever reasonable and practicable, localised infestations of weeds, pests or diseases before they are securely established (<i>on plan commencement & ongoing</i>);</p> <p>18.4.4 encourage the coordinated involvement of industry, the community and other land managers in addressing weeds, pests and diseases (<i>on plan commencement & ongoing</i>); and</p> <p>18.4.5 investigate, and where reasonable and practicable take action to control the identified cause of, any significant decline in the health and vitality of forest ecosystems (<i>as required</i>).</p> | <p>For land managed by DEC, DEC continues to maintain records of 'Declared' and major environmental weeds at the district level.</p> <p>DEC continues to implement appropriate weed, pest and disease management practices and control programs, including, as part of the Western Shield program, aerial fox baiting on over 2.13 million ha, the control of feral pigs, rabbits, arum lily, bridal creeper, blackberry and other declared and priority environmental weeds at a yearly cost of over \$2 million (this includes salaries, operational costs and overheads only on land to which the FMP applies). This expenditure was similar to that for 2005.</p> <p><u>Expenditure for 2005/2006 financial year only</u></p> <p>Western Shield - \$442,792 Control of Introduced Animals - \$691,607 Control of Introduced Plants - \$1,279,952 Total - <u>\$2,414,351</u></p> <p><u>2006/2007 - up to end December 2006</u></p> <p>Western Shield - \$229,614 Control of Introduced Animals - \$419,094 Control of Introduced Plants - \$675,478 Total - <u>\$1,324,186</u></p> <p>DEC continues to actively pursue sponsorship support from the mining industry for the Western Shield program on land to which the FMP applies. Alcoa supports the Western Shield program in the northern jarrah forest to the value of around \$123,000 per annum.</p> <p>DEC prioritises weed, pest and disease control operations according to the potential environmental impact, distribution and invasiveness of any given infestation. The opportunity to eradicate an infestation is considered as part of the prioritisation of infestations to be treated and within available resources.</p> <p>With DEC's assistance the Department of Agriculture and Food contributed to the National Land and Water Resources Audit on the distribution and abundance of the 10 most significant invasive vertebrate pests in Australia for all of WA, including land to which the FMP applies.</p> <p>DEC continues to carry out the work relating to the systematic forest health monitoring system.</p> |
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Ecosystem health and vitality

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| <p>18.5 The Forest Products Commission will, so far as is reasonable and practicable, maintain their nurseries free from weeds, pests and pathogens that could be transported into the forest with planting stock. <i>(on plan commencement & ongoing)</i></p> | <p>The Forest Products Commission has been conducting its nursery operations having regard to the requirements of this action. Where necessary, weeds are removed from planting stock prior to leaving the nursery. No related incidents were captured in the nursery's EMS.</p> |
| <p>18.6 (Plantations): The Forest Products Commission will:</p> <p>18.6.1 monitor for the presence of significant weeds, pests and diseases in plantations, and where reasonable and practicable undertake control measures <i>(on plan commencement & ongoing)</i>;</p> <p>18.6.2 develop and implement weed, pest and disease control programs for identified weeds, pests and diseases <i>(on plan commencement & ongoing)</i>;</p> <p>18.6.3 where there is an identified risk that plantation operations may result in transport of <i>Phytophthora cinnamomi</i>, conduct its operations having regard to the policy and in accordance with the Guidelines referred to in Action 18.2 <i>(on plan commencement & ongoing)</i>; and</p> <p>18.6.4 take reasonable and practicable measures to control the spread of plantation species into adjacent native vegetation <i>(on plan commencement & ongoing)</i>.</p> | <p>The Forest Products Commission monitors and where necessary implements control programs for significant weeds, pests and diseases.</p> <p>The Forest Products Commission responds to advice from the Department, Water Corporation, and the Department of Agriculture regarding the presence of declared pests, weeds and diseases as necessary and appropriate.</p> <p>Forest Products Commission operations manage dieback in accordance with approved hygiene plans developed for each coupe.</p> |
| <p>19. DEVELOPING SELF-SUSTAINING ECOSYSTEMS The plan proposes the following Actions at the operational scale for the purpose of seeking to develop self-sustaining ecosystems of native species from regeneration or rehabilitation operations in native forest:</p> | |
| <p>19.1 The Department and the Forest Products Commission will undertake their regeneration or rehabilitation operations by <i>(on plan commencement & ongoing)</i>:</p> <p>19.1.1 using natural regeneration where reasonable and practicable; or</p> <p>19.1.2 where natural regeneration is not reasonable and practicable, using seed collected locally or plants propagated from seed collected locally.</p> | <p>Allowing natural seed drop from a perimeter influence remains a primary objective in regeneration and rehabilitation. Where the area is too large to rely on perimeter influence seed drop alone, DEC has assisted by using seed collected locally or plants propagated from seed collected locally for more efficient regeneration operations.</p> <p>The Forest Products Commission provides for natural regeneration for jarrah post harvest operations where gap and shelterwood treatments are applied. However, where clearfell in karri dominant forest is adopted, planting of karri or a karri/jarrah mix of seedlings is done. Seed is collected locally and propagated in the Forest Products Commission's nursery for the follow-up planting.</p> <p>In 2005, the DEC commenced a project to study genetic variability to better define "local" in the context of this action. Progress on this project, <i>Identification of seed collection zones for rehabilitation</i>, is reported in the Department's Science Division's <i>Annual Research Activity Report July 2006-June 2007</i>, available at: http://www.naturebase.net/component/option,com_docman/task,catalog/view/gid,700/Itemid,711/.</p> |

Ecosystem health and vitality

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| <p>19.2 The Department and the Forest Products Commission will report to the Conservation Commission annually as to the circumstances where local seed sources have not been used in their regeneration or rehabilitation operations. <i>(in year 1 & ongoing)</i></p> | <p>For 2006 there are no known occasions where seed other than that sourced locally was used in regeneration and / or rehabilitation operations.</p> |
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Soil and water

| FOREST MANAGEMENT PLAN ACTION | IMPLEMENTATION STATUS |
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| <p>20. SOIL An overall aim of the plan is to seek to protect soil and water resources on land to which the plan applies.</p> | |
| <p>20.1 The Forest Products Commission and the Department will conduct their operations involving the use of heavy machinery in a manner that:</p> <p>20.1.1 has regard to the requirements of Appendix 6 where the operation occurs prior to the approval of the Guidelines referred to in the following paragraph (<i>on plan commencement & end of year 2</i>); and</p> <p>20.1.2 is in accordance with the Soil and Water Conservation Guidelines which are to:</p> <ul style="list-style-type: none"> • be prepared by the Department with public consultation; • provide for the manner in which the requirements of Appendix 6 are to be met; and • be submitted to the Conservation Commission for advice and approved by the Minister for the Environment by 31 December 2005, when they will take effect and supercede Appendix 6 (<i>in year 2 & end of year 2</i>). | <p>Implementation of the requirements of Appendix 6 and the <i>Interim Manual of Procedures for the Management of Soils Associated with Timber Harvesting in Native Forests</i> (Interim Manual), which superseded Appendix 6, has been a major focus for DEC in the first three years of implementation of the Plan. The Interim Manual, which provided the basis for implementation of Appendix 6, was developed in 2004 and reviewed and revised in 2005 and 2006.</p> <p>The Forest Products Commission continued to apply the requirements of these documents. Three incidents, related to the implementation of the Interim Manual, were recorded in the Forest Products Commission's EMS. One related to log loading whilst free water was present on landings, one to a minor oil spill, and one to inappropriate snig track design.</p> <p>Monitoring of soil disturbance during timber harvesting operations indicated that operations were generally undertaken well within the maximum allowable soil disturbance thresholds.</p> <p>The Soil and Water Conservation Guidelines are under development.</p> |
| <p>20.2 The Department and the Conservation Commission will review the operation of the implementation of Appendix 6 and any Guidelines approved under Action 20.1.2, 12 months after the commencement of the plan. (<i>in year 2 & end of year 2</i>)</p> | <p>The requirements of Appendix 6 were reviewed, revised and re-issued during 2006 based on the experience of operations in 2004 and 2005. There have been no guidelines approved under Action 20.1.2 of the FMP that required reviewing.</p> |
| <p>20.3 The Department will investigate the development of a soil hazard assessment system to help planning to protect soil from damage. (<i>by year 5 & end of year 6</i>)</p> | <p>A consultant report on soil trafficability issues was completed and published in 2005. A contract for the mapping of soils in timber harvesting areas was initiated, the field work completed and the final report was close to completion at the end of 2006.</p> |

Soil and water

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| <p>20.4 The Forest Products Commission and the Department will rehabilitate soil damaged in the course of their operations (<i>on plan commencement & ongoing</i>) by:</p> <p>20.4.1 identifying and mapping damaged soil; and</p> <p>20.4.2 undertaking rehabilitation work as soon as is reasonable and practicable after the completion of the operation.</p> | <p>DEC is committed to the rehabilitation of soil damaged during operations.</p> <p>For 2006 there were no major instances of soil damaged as a result of Departmental operations. However, in the South West Region soil erosion due to burn boundary upgrades and forest roads were identified for rehabilitation.</p> <p>The Forest Products Commission is committed to rehabilitation of soil damaged during operations. For example in karri regeneration coupes, extensive ripping of landings was undertaken.</p> <p>The Forest Products Commission has been engaged with the Department in the development and implementation of guidelines for the rehabilitation of damaged soil to provide clearer guidance on commitments in this area.</p> |
| <p>20.5 (Plantations): The Forest Products Commission will:</p> <p>20.5.1 conduct its plantation operations in a manner that is in accordance with guidelines for soil protection in the Code of Practice for Timber Plantations and the relevant plantation manual, which will be revised in consultation with the Department by 31 December 2005 (<i>on plan commencement & ongoing</i>); and</p> <p>20.5.2 rehabilitate damaged soil resulting from plantations operations to the standards specified in the Code of Practice for Timber Plantations and the relevant plantation manual (<i>on plan commencement & ongoing</i>).</p> | <p>There were no incidents of excessive soil disturbance recorded in 2006.</p> <p>The <i>Code Of Practice for Timber Plantations in WA</i> was completed in 2006.</p> |

Soil and water

| 21. WATER The plan proposes the following Actions at the operational scale for the purpose of seeking to protect the ecological integrity and quality of streams, wetlands and their associated vegetation, and increase the flow of water to surface and groundwater reservoirs: | |
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| 21.1 The Department and the Forest Products Commission will conduct their operations: 21.1.1 in a manner that has regard to the provisions for stream zones in Appendix 3 where the operation occurs prior to the approval of the Guidelines referred to in the following paragraph (<i>on plan commencement & end of year 1</i>); and 21.1.2 in accordance with the Guidelines for the Management of Informal Reserves referred to in Action 3.1.2 and the Soil and Water Conservation Guidelines referred to in Action 20.1.2 (<i>in year 2 & ongoing</i>). | <p>The DEC and the Forest Products Commission have continued to conduct their operations in accordance with the provisions of Appendix 3. Eleven EMS incidents reported unauthorised machine entry or felling of some trees in informal reserves. In most cases this involved activity in 60 metre wide stream zones, none of which was significant in extent or impact</p> <p>Both guidelines referred to have not been completed, but are under development. The Forest Products Commission has liaised with the DEC in the preparation of these guidelines. Specific aspects of management, not covered by existing guidelines, are being addressed through the development of Advisory Notes.</p> <p>As reported for Action 3.1, 2 Advisory Notes (Blade-up Access on State Forest and Timber Reserves and Management of Access in Informal Reserves and Other Protected Areas Within State Forest and Timber Reserves) were published in 2006 and a third Advisory Note (Salvage of Logs in Association with Informal Reserves) is well developed. Additionally, Advisory Notes have been published (Rehabilitation of Landings and Extraction Tracks that have been Corded or Matted) and are under development (Rehabilitation of Soil Following Timber Harvesting in Native Forest) and a interim Manual (Interim Manual of Procedures for the Management of Soils Associated With Timber Harvesting in Native Forest) is in place. The contents of these Advisory Notes and Manuals will ultimately be incorporated, where appropriate, into the required guidelines.</p> |
| 21.2 The Department will review the extent and condition of public access ways leading to public water catchment areas, with a view to considering whether the number of access ways ought to be reduced or their condition improved. (<i>by year 5 & end of year 10</i>) | This action shall be reported against in year 5 (2008) |

Soil and water

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| <p>21.3 The Department and the Forest Products Commission, in consultation with the Conservation Commission, will evaluate with the Water Corporation and the Water and Rivers Commission any proposal seeking to employ silvicultural treatments to increase the flow of water to surface and ground water reservoirs. <i>(as required & as required)</i></p> | <p>The Conservation Commission, the DEC and the Forest Products Commission have contributed to the Water Corporation Wungong thinning proposal at the policy and technical levels. The FPC was also involved in the implementation of plans and operations involving forest harvesting. DEC staff attended the Wungong Technical Reference Group meetings providing input into project development and the review and development of research and monitoring proposals related to the treatment of State forest in catchment areas, particularly as it relates to the commitments made to the EPA within the Project proposal document and the FMP.</p> <p>DEC continued to work with Water Corporation in the development of Interim silvicultural guidelines for the treatment of State forest within the Wungong Catchment.</p> <p>DEC commenced field forest thinning operations within the Wungong Catchment as a contractor to Water Corporation operating under existing silvicultural guidelines.</p> <p>The FPC managed a harvest coupe in the Scabby Gully catchment, near Manjimup, following collaborative planning with the Water Corporation.</p> |
| <p>21.4 The Department:</p> <p>21.4.1 will provide advice and assistance to bodies seeking access to the potential sub-surface aquifers and surface reservoirs located on land to which the plan applies <i>(as required & as required)</i>;</p> <p>21.4.2 will facilitate access to land to which the plan applies for the purposes of water extraction and the development of associated infrastructure for public water supply purposes where this is consistent with the CALM Act <i>(as required & as required)</i>;</p> <p>21.4.3 will take and use water sustainably from land to which the plan applies <i>(on plan commencement & ongoing)</i>;</p> <p>21.4.4 may issue permits, after consultation with the Conservation Commission, for the sustainable taking of water from land to which the plan applies <i>(as required & as required)</i>; and</p> <p>21.4.5 will assist the Conservation Commission to develop a policy to provide guidance when proposals to take water from land to which the plan applies are considered <i>(as required & as required)</i>.</p> | <p>During 2006, the Department's and Conservation Commission's emphasis was on the assessment of the likely environmental impact of the Water Corporation's proposal to extract from the SW Yarragadee, being 45GL of water from State forest and national parks. Reports were provided to the Environmental Protection Authority on the likely environmental impact of the proposal.</p> <p>It was anticipated that the arrangements for the SW Yarragadee proposal would provide significant guidance on formulation of the required Conservation Commission policy for large scale water extraction from land to which the FMP applies.</p> <p>The DEC also continued discussions with the Water Corporation to facilitate access to CALM Act land to allow the taking of water by either agency. Preliminary steps to formulate a CALM Act water removal permit are proceeding.</p> |

Soil and water

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| <p>21.5 (Plantations): The Forest Products Commission will:</p> <p>21.5.1 conduct its plantation operations in a manner that is in accordance with guidelines for water protection in the Code of Practice for Timber Plantations and the relevant plantation manual, which will be revised in consultation with the Department by 31 December 2005 <i>(on plan commencement & ongoing)</i>;</p> <p>21.5.2 consult with the Water and Rivers Commission prior to undertaking plantation operations in a public water catchment area <i>(on plan commencement & ongoing)</i>; and</p> <p>21.5.3 evaluate with the Department, the Water Corporation and the Water and Rivers Commission any proposal seeking to employ silvicultural treatment to increase the flow of water to surface and ground water reservoirs <i>(as required & as required)</i>.</p> | <p>Operations have been conducted in accordance with this action item.</p> |
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Global carbon cycles

| FOREST MANAGEMENT PLAN ACTION | IMPLEMENTATION STATUS |
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| 22. FORESTS AS A CARBON SINK | |
| The plan proposes the following Actions at the whole of forest scale for the purpose of seeking to sustain or increase the net quantity of carbon stored in the forest ecosystem: | |
| 22.1 In addition to the Actions proposed in previous chapters, which will assist in maintaining net carbon storage, the Department will incorporate carbon management considerations into management planning and guidelines (<i>on plan commencement & ongoing</i>) by: <ul style="list-style-type: none"> 22.1.1 having regard to the function of the forest as a carbon sink in the ongoing development of its greenhouse gas position and policy on emissions, sequestration, and bioenergy. | The Department is continuing work on its draft climate-biodiversity strategy which commenced during 2004. DEC's greenhouse gas position and policy takes account of the potential for Western Australia's forest ecosystems to sequester carbon. The capacity for the forest ecosystems to increase sequestered carbon will be significantly affected by future climate regimes. Projected reductions in rainfall in forest regions would be expected to result in reduced forest mass and less sequestered carbon. The inclusion of increased forest sequestration into state and national carbon accounts is determined by national and international policies and accounting rules. Under current policies and rules, changes to carbon sequestration in native forests is not accounted in the Australian national greenhouse gas inventory. |
| 23. ENHANCED GREENHOUSE EFFECT | |
| The plan proposes the following Actions at the whole of forest scale for the purpose of seeking to incorporate the best available predictions of likely future climate change into management planning: | |

Global carbon cycles

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| <p>23.1 The Department will:</p> <p>23.1.1 investigate the likely impacts of climate change on the forest, including the role of forest ecosystems in the carbon cycle (<i>in year 2 & ongoing</i>);</p> <p>23.1.2 maintain contact and, where appropriate, collaborate with external groups undertaking research and modeling relating to climate change (<i>on plan commencement & ongoing</i>); and</p> <p>23.1.3 incorporate climate change prediction into future planning for the management of land to which the plan applies, where reasonable and practicable (<i>on plan commencement & ongoing</i>).</p> | <p>The Department has assembled and interpreted available climate change information and knowledge to enable this factor to be incorporated into forest plans where appropriate. The Department is working as a member of the IOCI Panel to generate better climate change information and scenarios for forest and other ecosystem and land management planning.</p> <p>Stage 2 of the Indian Ocean Climate Initiative (IOCI) reported in February 2006 that the south west regional effects of global climate change were likely to have been a causal factor for the reduced rainfall experienced in much of the south west region since the 1970s and that the best climate projections for the south west region were for continued warming and reduced rainfall. The CSIRO will release updated regional climate scenario projections in October 2007 and Stage 3 of IOCI will generate more detailed regional climate scenario projections for the south west region in 2007- 2010.</p> <p>As climate is a fundamental determinant of ecosystem composition, structure and processes, any change to climate conditions is likely to result in changes to ecosystem composition, structure and processes, and thereby to the level of sequestered carbon in the ecosystem. Potential impacts of the projected changes to climate on WA's forest ecosystems will be investigated as part of the DEC – SANBI collaborative bioclimatic research project (2006/2007). The results of this research will be incorporated into forest management planning where appropriate, and monitoring will be undertaken to determine in situ changes to forest ecosystems which may be associated with changes to climate conditions.</p> <p>The impacts of elevated CO₂ concentrations on forest ecosystems are little understood. DEC will continue to review research findings on this issue and will include relevant information into forest planning as appropriate.</p> |
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Natural and cultural heritage

| FOREST MANAGEMENT PLAN ACTION | IMPLEMENTATION STATUS |
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| 24. ABORIGINAL HERITAGE | |
| The plan proposes the following Actions at the operational scale for the purpose of seeking to work with Aboriginal people to identify, interpret, protect, and manage significant cultural heritage sites: | |
| <p>24.1 The Department will:</p> <p>24.1.1 seek to establish a formal Nyoongar consultative working group to advise on issues relating to Aboriginal cultural heritage in the plan area (<i>in year 1 & end of year 1</i>);</p> <p>24.1.2 identify Nyoongar women and men with authority and knowledge relating to Aboriginal cultural heritage in the plan area, and provide for their involvement in the management of the forest (<i>in year 1 & end of year 2</i>); and</p> <p>24.1.3 facilitate cross-cultural awareness and interpretive activities to inform and educate the wider community regarding Aboriginal culture (<i>on plan commencement & ongoing</i>).</p> | <p>Negotiations with members of the South West Aboriginal Land and Sea Council were instigated during 2004. No formal progress was made through year 3 (2006). However, Regional staff continue to engage on an informal basis with Traditional Owners who can speak for country on a case by case scenario.</p> |
| 25. NATURAL AND OTHER CULTURAL HERITAGE | |
| The plan proposes the following Actions at the operational scale for the purpose of seeking to identify, record, assess and manage places of natural and cultural heritage significance on land to which the plan applies: | |
| <p>25.1 The Department will:</p> <p>25.1.1 maintain and, where reasonable and practicable, enhance databases of cultural heritage places and values (<i>on plan commencement & ongoing</i>); and</p> <p>25.1.2 cooperate with Commonwealth and State agencies, local government authorities and non-statutory organisations in relation to cultural heritage identification and conservation (<i>on plan commencement & ongoing</i>).</p> | <p>As at 31 December 2006 there were 1023 non-indigenous cultural heritage sites, including 16 moveable heritage items, recorded in the Department's Recreation and Tourism Information System (RATIS). These records were maintained and updated by a RATIS Officer and are accessible to DEC staff.</p> <p>A separate database for indigenous heritage places and values is not maintained by DEC. However, spatial information was maintained by the Geographic Information Services Section and updated monthly based on information received from the Department of Indigenous Affairs (DIA) which maintains a detailed Aboriginal Site Register under section 38 of the State's <i>Aboriginal Heritage Act 1972</i>.</p> <p>DEC continues to cooperate with DIA, the Heritage Council and other external agencies with responsibilities relating to cultural heritage.</p> |

Natural and cultural heritage

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| <p>25.2 The Department and the Forest Products Commission will conduct their operations in a manner that has regard to the Indigenous Heritage Management Guidelines and Non-Indigenous Heritage Management Guidelines after those Guidelines have been prepared. <i>(on plan commencement & ongoing)</i></p> | <p>No formal progress on the preparation of the guidelines stipulated under this action was made through year 3 (2006). However, Regional staff continue to engage on an informal basis with Traditional Owners who can speak for country on a case by case basis.</p> <p>The Non-indigenous heritage guidelines have been developed, but not approved for implementation by DEC. Work is needed to simplify the draft, although this was not undertaken in 2006 due to other priorities.</p> <p>This action will be reported against after both sets of guidelines have been prepared.</p> |
| <p>25.3 (Plantations): The Forest Products Commission will:</p> <p>25.3.1 undertake its operations in a manner that is in accordance with guidelines in the Code of Practice for Timber Plantations and the relevant plantation manual for the identification of significant heritage sites, which are to be revised in consultation with the Department <i>(on plan commencement & ongoing)</i>; and</p> <p>25.3.2 share information relating to identified heritage sites with the Department <i>(on plan commencement & ongoing)</i>.</p> | <p>Prior to commencement of each harvesting operation the <i>Pre Harvest Checklist (FPC444)</i> is completed which takes into account cultural values. The Forest Products Commission currently uses the same database information as the DEC with additional checks conducted using recognised Indigenous and non Indigenous heritage information web sites.</p> <p>No incidents were recorded in the Plantations EMS during 2006.</p> |

Socio-economic benefits

| FOREST MANAGEMENT PLAN ACTION | IMPLEMENTATION STATUS |
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| An overall aim of the plan is to seek to sustain and enhance socio-economic benefits obtained from the forest to meet community needs. | |
| 26. RECREATION AND TOURISM | |
| The plan proposes the following Actions at the whole of forest scale for the purpose of seeking to provide opportunities for active and passive recreation and tourism that will meet public demand, so far as is practicable and sustainable, and provide regional economic benefits: | |
| <p>26.1 The Department will:</p> <p>26.1.1 prepare, in consultation with the Conservation Commission, and progressively implement a strategic framework plan for recreation and tourism on land to which the plan applies (<i>in year 2 & end of year 5</i>);</p> <p>26.1.2 issue and administer licences, leases and permits for commercial tourism uses in accordance with the provisions of the CALM Act (<i>on plan commencement & ongoing</i>);</p> <p>26.1.3 issue permits and take other action to enable organised non-commercial recreation and educational groups to undertake appropriate activities (<i>on plan commencement & ongoing</i>);</p> <p>26.1.4 undertake research in relation to the knowledge, attitudes, skills and activities of visitors to land to which the plan applies (<i>by year 5 & ongoing</i>); and</p> <p>26.1.5 where appropriate, provide designated areas where camping may take place or where dogs and horses may be taken (<i>on plan commencement & ongoing</i>).</p> | <p>Implemented in part and ongoing</p> <p>Warren Region has completed a Regional Recreation Framework plan based on Recreation Opportunity Spectrum planning, and has now moved on to the next phase – detailed precinct plans. These have been completed for about half of the region. The Swan Region has developed both a structure for the two District Recreation Framework plans, and a process that will provide an analysis of data, which is required to best locate recreation facilities to meet future needs. The South West Region has not yet commenced preparation of a framework plan. Few recreation facilities exist in State Forest within the region and there are no plans in place for an expansion of facilities in the next few years. The South West Region has been focusing on national parks and management planning for those parks. In all areas there is a need to address recreation use of State forest in relation to pursuits such as mountain bike riding, car rallies, motor cycling and 4WD use. All regions have concerns with these activities and there are several working groups attempting to address the issues.</p> <p>As at 31 December 2006, 95 commercial operations licences were on issue for State forest areas; issued pursuant to Section 101 of the CALM Act and Part 7 of the CALM Regulations. Permits are issued by each of the Regions to organised non-commercial recreation and educational groups to undertake appropriate activities.</p> <p>The visitor satisfaction survey carried out during 2006/2007 continued to provide assessment of visitor activities and satisfaction with DEC lands, including land to which the FMP applies. The survey program was previously overhauled and revised and the survey form streamlined and re-formatted, with improved response rates as a result. Seven areas/sites to which the FMP applies were monitored and reported on in 2006/2007, which was less than the eleven from the previous year. However, more effort went into areas not covered by the FMP.</p> |

Socio-economic benefits

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| | <p>Under the <i>Protecting our old growth forests</i> policy, DEC received capital funding for new national parks and has been progressively implementing a range of infrastructure projects throughout the south west including campgrounds and other visitor facilities. Identification of campsites, which can be formally designated through a Government Gazette notice, is progressing on a region by region basis, although designation of campsites can also occur by signs in accordance with Departmental Regulations. Most of the DEC's formal campsites would be signposted as camping areas, therefore meeting designation requirements under the Regulations.</p> <p>Horse riding in natural areas and domestic animals/pets are addressed in the Department's revised Policy Statement No. 18 – Recreation, Tourism and Visitor Services, which was finalised in October 2006 following extensive internal review and public consultation.</p> |
| <p>27. VISUAL LANDSCAPE The plan proposes the following Actions at the whole of forest scale for the purpose of seeking to protect visual landscapes:</p> | |
| <p>27.1 The Department and the Forest Products Commission will:</p> <p>27.1.1 maintain a visual landscape classification and management system (<i>on plan commencement & ongoing</i>);</p> <p>27.1.2 review guidelines for the application of visual landscape management principles in land-use planning, codes of practice, operational guidelines and other relevant manuals (<i>by year 5 & end of year 5</i>); and</p> <p>27.1.3 make submissions in relation to development proposals that may impact on visual landscapes on land to which the plan applies that are forwarded to them for comment or advice, with a view to seeking to reduce the effect of any proposed development on the visual quality of the landscape (<i>as required & as required</i>).</p> | <p>No changes to the visual landscape classification and management system were made in 2006.</p> <p>The Forest Products Commission implements the visual landscape management systems specified in the Department's guidelines such as <i>SFM Guideline No 1</i>. Visual landscape management is an item for consideration in the <i>Pre Harvesting Checklist</i>, and harvesting operations must give relevant consideration.</p> <p>The review of guidelines for the application of visual landscape management principles in land-use planning, codes of practice, operational guidelines and other relevant manuals will be reported against in 2008.</p> <p>The DEC continues to assess and respond to submissions in relation to development proposals, that may impact on visual landscapes to which the plan applies, using the silvic guidelines and standard operational / approvals management for harvesting.</p> |
| <p>27.2 (Plantations): The Forest Products Commission will consider the impact of plantation operations on the visual quality of the landscape and where reasonable and practicable, will conduct those operations in a manner that seeks to reduce their impact on the visual quality of the landscape. (<i>on plan commencement & ongoing</i>)</p> | <p>This action item was addressed where required.</p> |

Socio-economic benefits

| 28. MINERALS AND PETROLEUM | |
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| The plan proposes the following Actions at the whole of forest scale for the purpose of seeking to reduce the impact of mineral and petroleum operations on land to which the plan applies: | |
| <p>28.1 The Department and the Conservation Commission will:</p> <p>28.1.1 make submissions in relation to mining and petroleum proposals on land to which the plan applies that are forwarded to them for comment or advice, with a view to seeking to reduce the effect of mining and petroleum operations on that land (<i>as required & as required</i>);</p> <p>28.1.2 provide advice and, where appropriate, assistance to industry and Government agencies in relation to the effect of mining and petroleum operations on the forest, the means by which those effects may be reduced and the rehabilitation of the forest after those operations are complete (<i>as required & as required</i>); and</p> <p>28.1.3 seek to recover the cost of providing that advice and assistance (<i>as required & as required</i>).</p> | <p>This action is addressed on a case by case basis. The DEC and the Conservation Commission continues to provide advice to the Environmental Protection Authority, the Department of Industry and Resources and industry on all proposals that have the potential to impact on land to which the FMP applies. Advice is focused on achieving impact avoidance, reduction or mitigation in that order.</p> <p>The DEC continues to provide advice to the Environmental Protection Authority, the Department of Industry and Resources and industry on operations that impact land to which the FMP applies with a view to achieving sustainable vegetation systems in accordance with the Department's Policy 10 <i>Rehabilitation of Disturbed Land</i> and to seek to ensure liability to the State post closure is minimised.</p> <p>The Department continues to seek cost recovery where appropriate.</p> |
| 29. BASIC RAW MATERIALS | |
| The plan proposes the following Actions at the whole of forest scale for the purpose of seeking to manage basic raw materials (BRM) and promote the rehabilitation of areas to which the plan applies where BRM have been extracted: | |
| <p>29.1 The Department will extract and use gravel and other BRM required for the management of land to which the plan applies. (<i>on plan commencement & ongoing</i>)</p> | <p>This Action is addressed on an ongoing basis.</p> |
| <p>29.2 The Conservation Commission will review its policy on BRM extraction as a matter of priority. (<i>in year 2 & end of year 2</i>)</p> | <p>Due to other priorities this item has not been progressed in 2006.</p> |
| <p>29.3 The Department will make submissions in relation to proposals to extract basic raw materials on land to which the plan applies that are forwarded to it for comment or advice, with a view to seeking (<i>as required & as required</i>):</p> <p>29.3.1 to have the cost of rehabilitation of areas from which BRM are extracted borne by the organisation responsible for the extraction of those materials; and</p> <p>29.3.2 the lodgment of a rehabilitation performance bond.</p> | <p>All <i>Mining Act 1978</i> leases and notice of entry agreements under the <i>Local Government Act 1995</i> continue to require the proponent to bear rehabilitation costs.</p> <p>The DEC continues to seek the application of performance bonds for exploration, except where risks are very low, and mining operations other than operations covered by State Agreement Acts.</p> |

Socio-economic benefits

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| <p>29.4 The Department and the Forest Products Commission will maintain a database of areas from which BRM have been extracted and will progressively develop plans and works programs for the rehabilitation of these areas. <i>(in year 2 & end of year 10)</i></p> | <p>DEC continues to record in the SILREC database new BRM extraction sites for roading associated with the timber industry. Additional funding for the rehabilitation of BRM pits was provided for in 2006/2007 financial year.</p> <p>The Forest Products Commission assembled data sets for each region detailing areas from which basic raw materials (gravel pits) were extracted. Each database details all gravel pits created since the inception of the FPC in November 2000.</p> <p>Pits are rehabilitated by a combination of ripping, seeding and/or re-planting. A number of pits, which were more recently created to service harvesting coupes, have yet to be captured in the database as they do not become available for rehabilitation until completion of roading and harvesting in adjacent coupes.</p> |
| <p>30. LEASES The plan proposes the following Action at the whole of forest scale for the purpose of seeking to manage leases:</p> | |
| <p>30.1 The Department will issue and administer leases for facilities and uses in accordance with the provisions of the CALM Act. <i>(on plan commencement & ongoing)</i></p> | <p>Implemented and ongoing During 2006, DEC issued and administered eight new leases for facilities and uses on land to which the FMP applies, in accordance with the provisions of the CALM Act. One lease was issued for an area in the Warren Region, six for areas in the South West Region and one for an area in the Swan Region.</p> |
| <p>31. BIOPROSPECTING The plan proposes the following Action at the whole of forest scale for the purpose of seeking to promote, encourage and facilitate the controlled exploration of native flora for scientific, therapeutic and horticultural purposes:</p> | |
| <p>31.1 The Department will implement the current contract. <i>(on plan commencement & ongoing)</i></p> | <p>DEC continues to implement the current contract as amended. DEC has developed a model bioprospecting contract to facilitate negotiations with commercial and other research interests in a manner that enables sustainable access to the State's biological materials for bioprospecting purposes at the least management cost to all parties.</p> |

Plan implementation

| FOREST MANAGEMENT PLAN ACTION | IMPLEMENTATION STATUS |
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| <p>32. MONITORING AND AUDIT The plan proposes the following Actions for the purpose of seeking to monitor and audit the extent to which management of land to which the plan applies is undertaken in accordance with the plan:</p> | |
| <p>32.1 The Department and the Forest Products Commission, in consultation with the Conservation Commission, will:</p> <p>32.1.1 cooperate in the development of an annual audit program to monitor the extent to which management of land to which the plan applies is undertaken in accordance with the plan (<i>on plan commencement & ongoing</i>); and</p> <p>32.1.2 conduct audits in accordance with the annual audit program, and report the results to the Conservation Commission (<i>on plan commencement & ongoing</i>).</p> | <p>DEC's audit program consisted of native forest harvest management and environmental protection, plantation protection and dieback hygiene management.</p> <p>In 2006 the Forest Products Commission carried out audits in alignment with the programs previously agreed with the Department and the Conservation Commission. Scrutiny for these internal audits is based upon the EMS compliance framework dealing with operational controls such as coupe management, disease hygiene, and soil conservation. FPC Branch EMS systems have also been subject to internal audit, as well as external surveillance audits in order to maintain external certification standards.</p> |
| <p>32.2 The Conservation Commission will undertake independent audits to assist it in assessing the extent to which management of land to which the plan applies is undertaken in accordance with the plan, and will give priority to auditing (<i>on plan commencement & ongoing</i>):</p> <p>32.2.1 the management of old-growth forest in informal reserves;</p> <p>32.2.2 the protection of stream zones and less well reserved vegetation complexes;</p> <p>32.2.3 the selection and management of fauna habitat zones;</p> <p>32.2.4 marri retention;</p> <p>32.2.5 dieback hygiene;</p> <p>32.2.6 protection of significant flora and understorey species; and</p> <p>32.2.7 soil management.</p> | <p>The Conservation Commission is responsible for conducting audits of activities undertaken by both the Department and the Forest Products Commission. An audit program framework has been developed. A number of inspections were undertaken and reports on the findings are being prepared which will include recommendations for improvements where necessary. Once completed, these reports will be publicly available on the Conservation Commission's website.</p> <p>During 2006 the following two-part report was completed: Master Burn Planning and Prescribed Burning</p> |

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| <p>32.3 The Conservation Commission will undertake comprehensive mid-term and end-of-term audits of the extent to which management of land to which the plan applies has been undertaken in accordance with the plan, which will include consideration of the extent to which all key performance indicator targets have been achieved. These audits will be provided to the Environmental Protection Authority for review by 31 December 2008 and 31 December 2012 respectively.</p> | <p>The mid-term audit is to be reported to the Environmental Protection Authority for review by 31 December 2008.</p> |
| <p>32.4 The Conservation Commission, the Department and the Forest Products Commission will publish the results of the audits referred to in Actions 32.1, 32.2 and 32.3. <i>(in year 2 & ongoing)</i></p> | <p>The results of the audit of compliance with environmental standards in timber harvesting continue to be published in the DEC Annual Report (2005/2006), which is available on the DEC website (http://www.naturebase.net/component/option,com_docman/task,cat_view/gid,212/Itemid,711/).</p> <p>Copies of the entire audit report are provided to the DEC and the Conservation Commission.</p> |
| <p>32.5 The Forest Products Commission will publish annual reports on the compliance of its staff and contractors with the provisions of the plan and subsidiary management guideline documents. <i>(in year 1 & ongoing)</i></p> | <p>The Forest Products Commission has published its report for 2006 and copies are available from http://www.fpc.wa.gov.au/pdfs/FMP%20Compliance%20Report%20as%20at%2031%20December%202005%20_final.pdf. Information from that report is also contained in this document.</p> |
| <p>32.6 The Department, in consultation with the Conservation Commission, will develop a protocol for each key performance indicator in the plan <i>(in year 1 & end of year 1)</i>, which will:</p> <p>32.6.1 identify the data to be collected and analysed in assessing the extent to which the key performance indicator has been achieved; and</p> <p>32.6.2 specify the persons who are responsible for the collection and analysis of that data.</p> | <p>Development of protocols for each key performance indicator began in mid 2004 and continued through 2005 and 2006. The protocols for 21 key performance indicators were approved in 2006. Work continued on the development of the remaining protocols for the key performance indicators outlined in the plan.</p> <p>Delays in developing most of the outstanding protocols are attributed to the need to negotiate with the agencies responsible for the data required for reporting against the key performance indicators,</p> |

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| <p>2.7 The Department and the Forest Products Commission will cooperate with the Commonwealth in the implementation of the Montreal Indicator program. <i>(on plan commencement & ongoing)</i></p> | <p>The DEC continues to be involved with the Commonwealth in the implementation of the Montreal Indicator program through representation on both the Montreal Implementation Group and the National Forest Inventory Steering Committee for Australia. During 2006 DEC participated in the review of the Montreal process indicators and collated information to provide for the 2008 national State of the Forests Report.</p> <p>The Forest Products Commission will cooperate with both the Department and the Commonwealth as required on this issue.</p> |
| <p>32.8 (Plantations): The Forest Products Commission will, through the Plantation Environmental Management System, audit the extent to which plantation operations are undertaken in accordance with the plan. Audits will be planned with and reported to the Department and the Conservation Commission. <i>(on plan commencement & ongoing)</i></p> | <p>There were six incidents relating to non-conformances against the requirements of the FMP. The incidents related to hydrocarbon spills and disturbance of native forest. All were of a minor nature.</p> |
| <p>33. ADAPTIVE MANAGEMENT</p> | |
| <p>The plan proposes the following Actions for the purpose of seeking to provide for adaptive management to improve forest management:</p> | |
| <p>33.1 The Department and the Forest Products Commission will, in cooperation with the Water and Rivers Commission and the Water Corporation, and in consultation with the Conservation Commission, conduct research in relation to the extent to which stream zones in informal reserves adequately protect biodiversity, water quality and water quantity in areas subject to timber harvesting. <i>(in year 2 & end of year 5)</i></p> | <p>A feasibility and costing study was undertaken during 2005 for an experimental study to investigate the adequacy of stream reserves in protecting biodiversity. The costing was significantly higher than budgeted for and contributions from FPC, the Department of Water and Water Corporation would not have allowed the project to proceed. A decision was made and endorsed by the Conservation Commission to abandon the proposal.</p> |
| <p>33.2 The Department will, in consultation with the Conservation Commission, conduct trials, where reasonable and practicable, of improvements to silviculture and fire management practices. <i>(by year 5 & ongoing)</i></p> | <p>A paper was under preparation during 2006 on the adaptive management trials, for the management of moist soils in association with timber harvesting, that were undertaken during 2004.</p> |
| <p>33.3 The Forest Products Commission will test methods to increase the utilisation of sawlogs below first and second grade standards. <i>(in year 2 & ongoing)</i></p> | <p>Utilisation of jarrah bole residue logs continued in 2006 under a contract to Whittakers Ltd. Third grade jarrah and karri sawlogs continue to be sold by the Forest Products Commission. Final details of a contract to supply third grade and other residue logs (including marri) to Australian Craftwood Timbers were determined.</p> |

34. REVIEW

The plan proposes the following Actions for the purpose of seeking to ensure that the plan Actions, policies and guidelines maintain their currency:

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| <p>34.1 The Department and the Conservation Commission will:</p> <ul style="list-style-type: none">34.1.1 develop or maintain a comprehensive suite of operational guidance documents (see Appendix 1) (<i>on plan commencement & ongoing</i>);34.1.2 evaluate the results from research, monitoring, audits and trialing of adaptive management practices to determine whether the plan, or guidelines and policies referred to in the plan, should be amended (<i>in year 2 & ongoing</i>);34.1.3 amend the plan if required according to the CALM and EP Acts (<i>as required & as required</i>);34.1.4 initiate an independent expert review of silvicultural practices and their impacts on biodiversity during the second half of the life of the plan. The review will have regard to the results from FORESTCHECK and other research monitoring, audits, and adaptive management trials of these practices (<i>in year 8 & end of year 9</i>);34.1.5 adopt the same processes for consultation, advice and approval for amending policies and guidelines as described earlier in the plan to develop or review them (<i>as required & as required</i>); and34.1.6 take action that is reasonable and practicable to address problems identified in management systems (<i>as required & as required</i>). | <p>DEC continues to review and adapt guidelines and management tools as a result of management trials, auditing and monitoring of timber harvesting operations. During 2006, a number of Advisory Notes were developed to meet the requirements on Action 3.1. The <i>Interim Manual of Procedures for the Management of Soils Associated with Timber Harvesting in Native Forest</i> was revised and re-issued in 2006 in consultation with the Conservation Commission.</p> <p>A performance assessment of the FMP will occur in 2007 and 2008 contributing to the mid-term audit report under ministerial condition 2. An independent review of silvicultural practices and their impacts on biodiversity will be undertaken and reported against in 2010</p> |
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35. COMMUNITY INVOLVEMENT

The plan proposes the following Actions for the purpose of seeking to provide opportunities for Government agencies, non-government organisations and the community to participate in plan implementation:

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| <p>35.1 The Department and the Forest Products Commission will, when required by the provisions of the plan, undertake public consultation in relation to the development and review of management policies and guidelines. (<i>as required & as required</i>)</p> | <p>The DEC conducts targeted public consultation and broad public consultation in respect to FMP Actions as required. Examples include the six season prescribed burn plan and the three-year timber harvest plan.</p> <p>There were no management policies or guidelines developed by the Forest Products Commission during 2006 that required public consultation.</p> |
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| <p>35.2 The Department will:</p> <p>35.2.1 develop and implement programs that seek to provide the community with educational opportunities and information on ecologically sustainable forest management, in particular information relating to the sustained yield statistics and models (<i>on plan commencement & ongoing</i>);</p> <p>35.2.2 establish public consultation processes (<i>on plan commencement & ongoing</i>);</p> <p>35.2.3 provide opportunities for community participation in voluntary activities and educational and social development programs relating to ecologically sustainable forest management (<i>on plan commencement & ongoing</i>); and</p> <p>35.2.4 provide a range of opportunities for volunteers to be involved in forest management activities (<i>on plan commencement & ongoing</i>).</p> | <p>No progress was made in 2006 on the development or implementation of programs seeking to provide community education opportunities and information. Information relevant to the FMP is updated on the website NatureBase</p> <p>Public consultation processes were established as required.</p> <p>During 2006, there were 17 volunteer projects on land to which the FMP applies, which continue to provide a range of opportunities for volunteers to be involved in forest management activities.</p> |
| <p>36. MANAGEMENT AND PERFORMANCE STANDARDS</p> | |
| <p>The plan proposes the following Actions for the purpose of seeking to provide for continuous improvement in management and performance standards:</p> | |
| <p>36.1 The Department will develop and maintain an environmental management system for forest management, which is to be independently accredited as conforming to AS/NZS ISO 14001. (<i>in year 2 & ongoing</i>)</p> | <p>The development of an EMS was not progressed during 2006. However, work was undertaken on progressing a costing and implementation plan for the Australian Forestry Standard, a forest sustainability certification scheme that incorporates the elements of an EMS.</p> |
| <p>36.2 (Plantations): The Forest Products Commission will maintain an environmental management system independently accredited as conforming to AS/NZS ISO 14001. (<i>on plan commencement & ongoing</i>)</p> | <p>The Forest Products Commission maintained an independently accredited EMS for its Plantation operations during 2006, and is committed to maintaining it as required.</p> |

37. ROLES AND RESPONSIBILITIES IN MANAGEMENT

The plan proposes the following Actions for the purpose of seeking to facilitate effective management of forests:

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| <p>37.1 The Department and the Forest Products Commission will:</p> <p>37.1.1 identify key roles and responsibilities in forest operations and specify the persons who are responsible for fulfilling those roles and responsibilities (<i>in year 2 & end of year 2</i>); and</p> <p>37.1.2 identify key tasks associated with implementation of the plan and specify the persons who are responsible for undertaking those tasks (<i>in year 2 & end of year 2</i>).</p> | <p>This Action will be implemented through action 36.1.</p> <p>Constructive discussions between Forest Products Commission and DEC staff were held to pre-empt subsequent development of respective roles and responsibilities agreements in accordance with the intent of this action item. These will be progressed in 2007.</p> |
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38. KNOWLEDGE

The plan proposes the following Actions for the purpose of seeking to generate and transfer knowledge and develop the necessary skills and competencies in staff of the Department and staff and contractors of the Forest Products Commission, with a view to leading to improvements in forest management:

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| <p>38.1 The Department will develop and implement research programs, in cooperation with the Conservation Commission, including the research referred to in Actions 9.1 and 9.2. (<i>on plan commencement & ongoing</i>)</p> | <p>Research programs were maintained (as specified in Action 9.2)</p> <p>FORESTCHECK work continued through 2006 and annual reports were published on the NatureBase website (http://www.naturebase.net/content/view/2388/482/).</p> |
| <p>38.2 The Department and the Forest Products Commission will take reasonable and practicable steps to:</p> <p>38.2.1 identify the skills required to competently undertake the key tasks referred to in Action 37.1.2 (<i>in year 2 & end of year 2</i>);</p> <p>38.2.2 review the skills and competency levels of persons responsible for undertaking those tasks (<i>in year 2 & ongoing</i>); and</p> <p>38.2.3 initiate training and other programs to increase skill and competency levels where they are deficient (<i>in year 2 & ongoing</i>).</p> | <p>The identification of skills required to undertake the key tasks referred to in Action 37.1.2 will be addressed through Action 36.1.</p> <p>A review of the skills and competency levels of persons responsible for the tasks will be implemented through Action 36.1.</p> <p>The Forest Products Commission will address the initiation of training and other programs to increase skill and competency levels in 2007.</p> |