# Summary of logging plans and strategies for community involvement

## based on recommendations

### from the

"Report to the Minister for the Environment by the Ministerial Advisory Group on karri and tingle management"

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# 1. Logging plans for 2000

#### Background

Logging plans for 2000 have been developed based on implementation of the Ministerial Advisory Group recommendations and the anticipated demand for logs under existing contracts.

These plans are depicted on Map 1, which shows the gross areas in which timber harvesting is anticipated to commence during the financial years 1999/2000 and 2000/2001 for the Central Forest Region and the calendar year 2000 for the Southern Forest Region.

The timing of individual operations is dependent upon the satisfactory completion of local planning processes and ongoing demand for log products. Strategies to address local community interest in specific areas are contained in the strategy for community involvement contained in section 3.

#### **Central Forest Region**

The areas indicated on Map 1 and listed below are proposed to be harvested according to the jarrah silvicultural guidelines to supply a range of jarrah and marri log products sufficient to meet contracted levels of Grade1 and Grade 2 sawlogs.

### Operations planned in the Central Forest Region 1999/2000

Boronia 1	Bristol 3	Butler 3	Butler 4	
Catterick 5	Darradup 2	Donnybrook 2	Donnybrook 3	
Godfrey 1	Godfrey 2	Godfrey 4	Godfrey 5	
Godfrey 6	. Harrington 2	Harrington 3	Hester 4	
Hester 7	Hilliger 3	Hilliger 4	Hilliger 5	
Hoffman 3	Hoffman 4	Leach 3	Leach 5	
Lowden 3	Lowden 4	McAlinden 1	Palmer 3	
Sherwood 1	Sherwood 2	Sussex 1	Warner 2	

#### Operations planned in the Central Forest Region 2000/01

Boronia 1	Boronia 2	Darradup 1	Darradup 2
Godfrey 3	Harrington 4	Helms 1	Helms 2
Hester 4	Hester 7	Lowden 1	Lowden 2
McAlinden 1	McAlinden 2	Palmer 1	Palmer 3
Preston 1	Preston 5	Red Gully 2	Red Gully 3
Sherwood 1	Sherwood 2	Sherwood 4	Woop-Woop 3

In addition to the above operations, there will be some ongoing operations carried over into these periods from earlier plans.

#### Southern Forest Region

Logging operations proposed to commence in both karri and jarrah areas are depicted on Map 1 and listed in the table below. Karri will be harvested in areas endorsed by the Ministerial Advisory Group with some additions to accommodate the issues outlined below. The karri plan includes areas of old growth, two-tiered and regrowth forest structure. There are no planned areas in sensitive old growth karri, nor in old growth or two-tiered karri/tingle forest.

Implementation will be subject to advice from the EPA as to whether the proposed changes that will flow on to the Ministerial Conditions attached to the Forest Management Plan 1994-2003 are in its view not substantial and may be implemented.

The Ministerial Advisory Group made no recommendations for change in jarrah silviculture and areas will therefore be harvested to the jarrah silvicultural guideline which includes cutting to gaps, shelterwood, and thinning.

The plan has been developed to meet contractual commitments, consistent with recommendations of the Ministerial Advisory Group. However, limitations in planning and deferral of harvesting due to community opposition have created a shortage of 'carry-over' operations from the 1999 plan and thereby a shortage of access for January/February 2000, which is the start-up of the peak summer harvesting. There is therefore an issue of risk with respect to continuity of log supply. While plans have been developed to minimise this risk, the advent of unfavourable weather conditions or disruption in harvesting operations may create shortages of log supplies, particularly in winter months. Under these conditions, it may be necessary to access other coupes not contained on the plan, such as Thomson 6, which can be partly accessed from existing roads. This would be subject to consideration by the Conservation Commission when established.

#### Operations planned in the Southern Forest Region 2000

Androw 2	Babbington 2	Big Brook 4	Big Brook 6
Andrew 2			•
Big Brook 9	Big Brook 11	Boorara 1	Boorara 3
Boorara 4	Boorara 16	Boorara 18	Carey 10
Channybearup 1	Channybearup 2	Channybearup 3	Channybearup 8
Collins 7	Collins 8	Collins 10	Collins 12
Court 6	Crowea 2	Crowea 8	Crowea 11
Crowea 13	Crowea 14	Dombakup 1	Dwalgan 1/3
Easter 2	Easter 7	Graphite 3	Kin Kin 1
Kin Kin 2	Kin Kin 3	Kin Kin 5	Kingston 6
Kingston 7	Lewin 1	Lewin 8	Lindsay 22
Lindsay 23	Lindsay 31	Lindsay 32	Lochart 9
Lochart 12	Mossop 4	Muirillup 3	Nairn 5
Nairn 6	Netic 3	Netic 4	Poole 3
Solai 3	Solai 6	Stoate 5	Wheatley I
Wheatley 8			

The plan has been developed to be able to supply currently contracted levels of karri Grade 1 and Grade 2 sawlogs to 22 customers. This is the legal requirement in the

absence of any other level agreed between Government and contract holders. It incorporates sufficient areas to accommodate some of the recommendations of the Ministerial Advisory Group, should government choose to accept them and stage their introduction. Detailed implementation of the plan will depend on:

- Confirmation of sawlog supply target. This plan was developed to meet 168,000 m<sup>3</sup> per annum of contractual commitment. Fewer areas would be required to meet an average karri sawlog target of 149,000 m<sup>3</sup> per annum if this could be achieved. Those areas not required would be deferred to form a component of the 2001 karri plan.
- Provision for the impacts of changes to coupe design. The Ministerial Advisory Group proposes limiting the size of clearfelled patches to less than 40 ha and to adopt 100 m visual resource buffers in some cases. If adopted by Government, these practices will increase the volume of timber deferred in buffers between patches, and additional coupes will be required to maintain contracted supply levels. It is noted that while the average clearfelled patch size in recent years has been approximately 20 ha, 11 coupes on the 2000 logging plan would exceed 40 ha and will need to be redesigned if this recommendation is adopted by Government.
- Sufficient 'contingency' to permit small-scale variations due to environmental, operational, or neighbour reasons through due planning processes. It is noted that the plan endorsed by the Ministerial Advisory Group had limited 'carry-over' of sawlog from the 1999 coupes and (depending on the supply target) there was no contingency to replace any areas which are deferred.
- Provision of carry-over into the year 2001 plan to ensure continuity of log supply in early 2001 while the annual roading program is underway.

### "Carry-over" operations in the southern forest region

For a number of seasonal, environmental, and market reasons, logging and regeneration operations are frequently not finalised within set 12 month periods. Consequently, there will always be areas which "carry-over" either volume or activities into successive years. Some of these areas will have been commenced late in the year and therefore be only partially harvested by December, while in others the only tasks outstanding may simply be the felling of individual trees to meet boundary preparation standards for regeneration burns.

The following tables identify those areas in the Southern Forest Region from 1999 or earlier logging plans for which one or a combination of the following apply:

- Tree felling operations are incomplete;
- Regeneration operations including burning have not yet been completed; or
- Log or residue material may be within the coupe or on landings and be delivered to customers as appropriate

# Carry-over of operations to 2000 within forest blocks containing "sensitive" old growth karri

Beavis 7	Beavis 8	Beavis 10	Carey 6
Carey 7	Gardner 3	Gardner 4	Gardner 5
Gardner 8	Giblett 6	Giblett 7	Giblett 8
Jane	Northcliffe 2	Northcliffe 7	Northcliffe 9
Sharpe 6	Swarbrick 3	Thompson 4	Thompson 6
Wattle 2	Wattle 3	Wye 9	•

There are a range of operations required in the above areas to conclude harvesting and regeneration, or to extract roadside logs in sensitive coupes. The Ministerial Advisory Group has recommended that in the karri areas "CALM negotiate with community groups associated with protests on coupes in sensitive areas and put in train log salvage and regeneration works." The following tables show the nature of the carry-over work. It is proposed to commence liaison with the community to complete these operations. It is emphasised that there are many such operations but the total volume of sawlogs is small.

# Carry over operations from 1999 or earlier plans. Anticipated status at 1 Jan 2000

COUPE	KARRI	JARRAH
Beavis 7	Cleanup and regenerate	N/A
Beavis 8	Cleanup and regenerate	N/A
Beavis 10	Cleanup early 2000	Cleanup early 2000
Carey 6		Completion early 2000
Carey 7		Completion early 2000
Gardner 4	Cleanup early 2000	N/A
Northcliffe 2	Cleanup and regenerate	N/A
Swarbrick 3	Cleanup and regenerate	N/A
Thomson 4 & 6	Extraction and cleanup	
Wattle 2	Regenerate	N/A
Wattle 3	Regenerate	N/A
Wye 9	Falling and extraction	
	following road repairs	
	required due to vandalism	

#### Removal of logs on the ground to allow regeneration to proceed

COUPE	KARRI	JARRAH
Gardner 3	Cleanup logs on landing	N/A
*1	and in coupe. Fell trees for	
	safety and future fire	
	protection needs	
Gardner 5	As above	N/A
Gardner 8 As above		N/A

# Removal of log material from roads constructed prior to signing of the RFA

COUPE	
Giblett	Includes $2-3$ ha of log material on the ground
Jane	Roadside logs only
Northcliffe 7	Gravel pit rehabilitation only
Northcliffe 9	Roadside logs only
Sharpe 6	Cleanup of Karri chipwood and small quantity of
1	Yellow Tingle for safety of regeneration and future
	fire protection needs.
	Roadside logs only

## Carry-over of operations to 2000 within forest blocks not listed as 'sensitive'

Alco 5	Alco 6	Andrew 2
Barlee 6	Big Brook 1	Big Brook 5
Boorara 18	Brockman 5	Brockman 8
Burnside 1	Burnside 2	Burnside 3
Challar 8	Channybearup 7	Cleave 6
Collins 1	Corbal 1	Corbal 2
Court 2	Court 3	Court 5
Crowea 12	Crowea 13	Crowea 14
Diamond 1 3	Diamond 1 4	Diamond 1 5
Diamond 1 14	Diamond 2 8	Diamond 2 10
Diamond 2 13	Diamond 2 14	Diamond 2 15
Dingup 6	Dombakup 1	Dombakup 5
	Gordon 4	Iffley 10
Lane 1	Lane 2	Lane 3
Lewin 1	Lewin 6	Lindsay 2
Lindsay 11	Lindsay 13	Lindsay 14
-	Lindsay 42	Lindsay 43
Mattaband 9	Mossop 2	Muirillup 4
Murtin 8	Nairn 7	O'Sullivan 18
Poole 14	Poorginup 4	Poorginup 4
	Rocky 2	Rocky 3
	Rocky 6	Solai 3
Sutton 3	Warren 3	Weld 8
	Barlee 6 Boorara 18 Burnside 1 Challar 8 Collins 1 Court 2 Crowea 12 Diamond 1 14 Diamond 2 13 Dingup 6 Flybrook 12 Lane 1 Lewin 1 Lindsay 11 Lindsay 36 Mattaband 9 Murtin 8 Poole 14 Quininup 7 Rocky 5	Barlee 6 Boorara 18 Boorara 18 Burnside 1 Challar 8 Collins 1 Court 2 Crowea 12 Diamond 1 3 Diamond 1 14 Diamond 2 13 Diamond 2 13 Dingup 6 Flybrook 12 Lane 1 Lane 1 Lindsay 11 Lindsay 11 Lindsay 36 Mattaband 9 Murtin 8 Poole 14 Quininup 7 Rocky 5 Rocky 5 Rocky 6

Please Note: This list has been based on the best available data but it has not been possible in the time available to verify in the field the precise status of all areas.

Opportunistic log deliveries can also arise during a year as a consequence of roading activities associated with recreation developments, MRD re-alignments, gravel or shale pit construction, clearing along private property fencelines, tree salvage following wildfire or storm events, the removal of dangerous or hazardous trees on burn boundaries or recreation sites and the maintenance or construction of public utilities.

# 2. Indicative plans for 2001-2003

#### Background

Indicative logging plans for the period 2001 – 2003 have been developed to provide a guide to areas that will be required to meet timber supply commitments during the period. The plans included in this document have been developed to implement the Government's policy instruction of 26 July 1999 and the subsequent report of the Ministerial Advisory Group.

Indicative plans for the southern forest region have been extracted from the strategic yield scheduling completed for the Ministerial Advisory Group. In tabular form, they show the area of forest in different structural classes that will be required to meet contracted supply levels during the period 2001-2003. These areas have been scheduled in accordance with the requirements of the Ministerial Advisory Group to ensure that the required long term non-declining yield can be delivered after 2003 based on forest that is not old growth karri or tingle.

Indicative plans for the Central Forest Region show individual coupes in both map and tabular form.

It is noted that approximately 3600 ha of old growth karri forest needs to be accessed for harvesting during the period January 2000-December 2003 under the outcome recommended by the Ministerial Advisory Group. This requires access to most of the old growth karri outside blocks listed as 'sensitive' in the Ministerial Advisory Group report. This does not provide significant latitude for selection of harvest coupes since much of the old growth is in narrow strips retained from previous operations, or is not feasible to access for other reasons. Large proportions of the available karri old growth are in blocks such as Crowea and Dombakup, which retain community support despite not being listed by the Ministerial Advisory Group. The Ministerial Advisory Group noted community opposition to harvesting in Boorara but recommended that this remain on the year 2000 harvest plan, which has been done.

#### **Central Forest Region**

Map 2 depicts the indicative areas in which harvesting is likely to commence during the period 2001/2002 to 2002/2003.

#### Southern Forest Region - karri

Under normal circumstances a four-year logging plan is prepared to guide forward planning. However, over the last 5 years the longer term plans for the Southern Forest Region have been continuously telescoped in order to sustain log supply against a backdrop of deferred areas arising from the DFA, the RFA and forest protests. The protracted nature of the RFA process caused most available 'contingency' areas to be brought forward to maintain log supplies. At the same time the list of "sensitive" areas has continued to grow as new coupes were commenced. The recommendation by the Ministerial Advisory Group to exclude from harvest any karri/tingle old growth or two-tiered forest has deleted large volumes which were previously available in the Department's forward plans from blocks such as Ordnance, Dawson and Burnett.

With this background, a completely new logging plan is required for jarrah and karri in the Southern Region for 2001-2003 and being a lengthy task, this is still in preparation. The selection of candidate areas needs to integrate the strategic fire protection, silvicultural, harvesting and biodiversity requirements.

However, using the broad regional scheduling performed for the Ministerial Advisory Group it is possible to indicate the relative extent of harvesting in the various karri structures during this period 2001-2003. It is emphasised that the Ministerial Advisory Group requested analysis of 149,000 m<sup>3</sup> per annum. Should the contracted level of 168,000 m<sup>3</sup> per annum of karri sawlogs be required, the areas accessed and harvested will be correspondingly greater.

# Minimum indicative area of forest (ha) required to supply 149,000 m<sup>3</sup> per annum of Karri first and second grade sawlogs.

FOREST STRUCTURE	TOTAL AREA FOR PERIOD 2001 – 2003	
	<b>Indicative Area</b>	Accessed Area
Karri old growth	1,600	2,100
Karri two-tiered	2,400	3,400
Karri regrowth	3,300	3,600

#### Notes

- Approximately 8 % is sourced from jarrah dominant stands.
- The "accessed area" is an estimate of the total area accessed when provision is made for the retention of TEAS to constrain clearfell cell size to a maximum of 40 ha.

The Ministerial Advisory Group report emphasised that under their preferred scenario, between 1999 and 2003 most of the karri old growth forest outside of reserves and sensitive forest blocks will be accessed or logged. Map 3 shows the old growth karri forest that is within reserves and sensitive blocks and is therefore not planned to be harvested. The remaining karri old growth forms the candidate areas for harvesting during the 2001-2003 period, subject to the development of detailed logging plans. The table below summarises the relevant forest blocks containing old

growth karri forest, which is available for harvesting under the recommendations of the Ministerial Advisory Group.

Indicative 'old growth' karri logging plan 2001 - 2003

Andrew	Babbington	Big Brook	Boorara
Brockman	Burnside	Challar	Channybearup
Charley	Cleave	Collins	Court
Crowea	Curtin	Diamond 2	Dingup
Dixie	Dombakup	Dordagup	Easter
Flybrook	Frankland	Gordon	Graphite
Gray	Iffley	Kin Kin	Lane
Lewin	Lindsay	Lochart	Long
Mack	Mattaband	Mindanup	Mossop
Muirillup	Murtin	Nairn	Netic
O'Sullivan	Peak	Poole	Quininup
Shannon	Solai	Spring	Strickland
Styx	Sutton	Warren	Weld
Westcliffe	Wheatley	Yanmah	

The total area of old growth accessed and harvested during this period will depend upon the target level of sawlog supply.

#### Southern Forest Region - Jarrah

At this time detailed logging plans for jarrah in the Southern Forest Region for the period 2001 – 2003 are still being developed. An important issue is the status of jarrah within the forest blocks containing sensitive old growth karri. There is approximately 20,000 ha of jarrah (including jarrah/yellow tingle) forest within the sensitive blocks. It is anticipated that in order to sustain jarrah sawlog supply at the levels specified in the Regional Forest Agreement, between 8 – 10 of the forest blocks containing "sensitive" old growth karri will need to be accessed. The precise location of such coupes is still being determined with reference to strategic roading, protection and integrated harvest requirements.

Any variations to the existing land base, silvicultural or harvesting guidelines when accessing the jarrah in sensitive areas will impact on the sustainable yield for jarrah if they result in the permanent retention of more trees than are currently specified. This is because the yield scheduling for the RFA was based on the current reserve system and operations guidelines. Similarly, the area of each forest type used when scheduling the yields was based on the mapped definitions of karri and jarrah old growth. Any variation to these, particularly in the mixed stands, will vary the supply of sawlog.

#### Strategy to access jarrah in 'sensitive' blocks.

The Advisory Group has determined that the following blocks contain sensitive areas of karri old growth forest. All of these blocks contain jarrah and/or jarrah/tingle forest types to a varying extent:

Beavis	Keystone
Burnett	Northcliffe
Carey	Ordnance
Dawson	Sharpe
Deep	Swarbrick
Gardner	Thomson
Giblett	Wattle
Jane	Wye

The Department is aware that there are also forest blocks in the Southern Forest Region containing only jarrah forest not identified by the Ministerial Advisory Group report that would be classed as "sensitive blocks" by some community groups.

For example Rocky and adjacent blocks were identified in the Walpole Wilderness proposal. It is advised that in 2000, the only jarrah coupe planned in karri sensitive blocks is Carey 10. The coupe can be accessed without conflicting with karri areas in the block. There are several patches of karri that can be isolated and excluded during the harvesting process.

It is also noted that other management practices such as burning will need to be addressed in blocks identified as sensitive.

In developing the following strategy, it has been assumed that the Government policy of avoiding additional impact on jarrah log supplies will continue. However, the complex mosaic of forest types will prevent access to at least some of the jarrah resource without building roads through old growth karri in sensitive forest blocks. If this is not acceptable to the Government or community, then it is inevitable that some jarrah resource will become unavailable. At the same time, harvesting and road construction in mixed forest types within the sensitive blocks will produce some karri logs. Karri logs will therefore appear from time to time from blocks listed as containing sensitive karri old growth, and otherwise removed from karri harvest plans.

The Department proposes the following methodology be adopted in accessing jarrah from sensitive areas adjacent to karri old growth forest:

- Jarrah harvesting will be carried out in accordance with codes of practice and silvicultural guidelines.
- In accordance with the 26 July 1999 Cabinet decision to establish new codes of practice (and contractor coupe management), these codes will be reviewed through a process involving public submissions.
- The guidelines will be modified to assist decision-making where there exists the gradation from pure karri forest to forest where karri occurs in varying mixtures with other species to jarrah stands where karri is absent.

- Concept plans for individual coupes are an integral part of the planning process. Amongst essential items, the concept plan for a coupe defines the management boundaries to be used and the location of access roads. As suggested in section 3, in areas of particular concern, the concept plans would be prepared with community input.
- During summer 2000 it is envisaged that a representative area be selected and planned in detail with input from the community to enable a practical system of management to be developed and incorporated into amended silvicultural guidelines as appropriate.

# 3. Framework for community involvement in management of the jarrah forest

#### Background

The Department has been asked to develop a "framework for a jarrah strategy that provides for local community involvement in decisions on forest management", including:

- involvement of the community in decisions about harvesting; and
- stakeholder involvement where there are plans to log in potentially sensitive areas.

Relevant components of the package of measures from 26 July 1999 include:

 Areas of particular community attachment to be treated as special management areas with a strong emphasis on local community involvement in decisions regarding management and harvesting operations;

In addition, the Ministerial Advisory Group made reference to public consultation in the following recommendations in their report:

- 2.4.1 Nyungah<sup>1</sup> people should be involved in setting goals for the attainment of ecologically sustainable forest management and should be given adequate notice of any proposed roading or logging in areas of concern to them.
- 3.3.1 Processes for community involvement need to be improved, developed and fostered.
- 3.3.2 CALM data and processes need to be made more transparent.
- 3.4.1 A mediation process should be established using the services of mediators established in other fields.
- 5.1.1. In preparation for the review of the Forest Management Plan, the proposed Conservation Commission should institute a transparent audit of data, models and other technical information used to set logging plans and silvicultural prescriptions.
- 5.1.2 The proposed Conservation Commission should appoint a panel of experts to review the implementation of each Forest Management Plan prior to its expiration. The panel should make recommendations for improvements in line with contemporary best practice.
- 5.2.1 The review of the present Forest Management Plan should be initiated as soon as possible to ensure Ecologically Sustainable Forest Management principles and the processes of community involvement are given ample opportunity and are examined through due processes under the Environment Protection Act.

<sup>&</sup>lt;sup>1</sup> This is the spelling used in the Ministerial Advisory Group report. CALM has been advised that the preferred spelling is Noongar.

# Proposal for community involvement in forest planning and management

It is proposed that a series of processes be established following the hierarchy of statutory, policy, management and operational planning that is necessary for smooth functioning in a land management agency. This hierarchy can also be characterised as "whole of forest", regional and local level planning. Throughout the hierarchy, it is essential for the identified group to be tasked to condense all public input into a form for decision-making.

The elements of the hierarchy are as follows:

#### A. Development of Forest Management Plans.

This is the State level of planning, and involves statutory processes under State legislation.

During development of the RFA in Tasmania, an independent body, the Public Land Use Commission (PLUC) carried out this function successfully. To increase the level of community involvement, and to access that input earlier in the planning process, it is proposed that the Government consider using an independent task force or person to facilitate public involvement in the development of draft Forest Management Plans.

A public land use task force (PLU Task Force) could coordinate all public involvement, including that with Noongar groups, associated with <u>development</u> of the draft forest management plan. Issues including the allocation of land use, levels of cut, access for mining and water impoundments could all be discussed during this process, and the results could be incorporated into draft plans being prepared by the Department.

Once a draft plan had been formulated, it would enter formal statutory processes including EPA assessment. The final plan would be approved by the Minister(s) in accordance with statutory requirements of the Environmental Protection Act and Conservation and Land Management Act.

It is possible that the proposed Conservation Commission could undertake the public consultation process, but given its statutory powers this may be difficult. The Conservation Commission may prefer to make use of a completely independent facilitator for this reason.

#### B. Development of medium-term integrated land use plans.

Within the framework of an approved Forest Management Plan, plans are developed at a district / regional level for activities such as logging, burning, road construction and recreation development over a 1 to 4-year time frame. These have been traditionally developed within the Department but are available to the public.

Whilst the current report is focussed on timber harvesting, it is proposed that community consultation mechanisms would apply to the wider issues of forest management through the development of integrated land use plans.

It is proposed that formal public involvement be introduced once again through the use of independent facilitators. Local governments would have a particularly important role to play in such a process. Regional "accord" committees incorporating several shires could be formed to deal with the large number of local government areas, some of which only contain small areas of State forest.

At this level, issues of land tenure (land use), levels of cut and access for mining or water impoundment would not be open for consideration. The focus of involvement would be on the sequencing of operations from one year to the next, ways to distribute any impacts equitably over space and time, and ways to meet all management objectives with the least impact on the community. Aspects of procedure (e.g. silvicultural methods) would be open but constrained within the limitations of the management plan.

In recent times, the Bridgetown community has successfully developed an accord along these lines, although in this case a significant element of the accord related to land use decisions. Under the proposed hierarchy, such decisions would be made at the first level, and the local process would address timing and similar issues. (A summary of the accord is attached).

#### C. Operational coupe-level plans.

When planning individual logging coupes, formal liaison is conducted with neighbours resident on adjacent properties.

This element is principally concerned with ensuring that local issues are fully recognised in detailed coupe planning. It is proposed that the existing practice be continued and refined to ensure that neighbours and local interests are consulted, but within the framework of agreed district/regional level integrated plans. At this level, the focus would be on detailed design to minimise impacts on visual amenity and similar issues. Once again, local governments would be key players, with an aim to balance the demands of localised issues against the wider regional objectives.

In the short term it is proposed to develop and refine the process of liaison through a limited number of trials. Under the implementation of the accelerated restructuring policy, the first suggested area would be Hester 4, where community involvement is already well advanced.

Being located in the Greenbushes supply area, Hester will be critical for log supply to the proposed new value-adding and manufacturing facility at Greenbushes.

During the RFA, the Bridgetown Accord process, led by the Shire of Bridgetown Greenbushes reached agreement on the reservation of parts of Hester. Since the RFA was signed, the District Manager has undertaken substantial liaison with members of the Bridgetown Accord, as well as the neighbours of adjacent properties. The

objective has been to examine how detailed plans could be modified to meet local concerns.

Agreement has been reached with accord participants and neighbours to the various design elements, and copies of the final "concept plan" are to be provided, before the operation commences. This is expected to occur during December.

In the short term, it is proposed that this example be used as a formal case study for community liaison in logging planning under the policy. It is proposed that as soon as practicable, more formal "community accord" groups be established for other sensitive areas including local governments and if necessary the appointment of public facilitators.

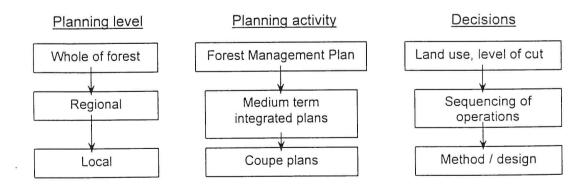
The Ministerial Advisory Group recommended a mediation mechanism. Successful liaison in accordance with the proposed community liaison groups should preclude the need for formal mediation. Statutory processes of EPA assessment and Ministerial approval would appear to preclude a mediation process at the whole of forest level.

#### Summary

A three-level hierarchy of community involvement is proposed, commencing at the whole of forest level, leading to the approval and adoption of a forest management plan.

Within this approved framework, regional or district level consultation will examine issues of timing and sequencing of harvesting and related land management practices including burning and recreation developments.

At the local level, consultation will focus on the detailed design, or 'how' operations will be conducted. Coupe plans for Hester will form a pilot for this process, involving the Bridgetown accord participants.



## 4. Fire protection

The Ministerial Advisory Group has acknowledged the increase in forest areas carrying unacceptably high fuel loads in the Southern Forest Region. There is a similar backlog in prescribed burning in the Central Forest and Swan Regions. This backlog has occurred largely as a consequence of constraints placed on prescribed burning to meet air quality expectations of residents of the Perth metropolitan area.

The Ministerial Advisory Group has also recognised the increased complexity of fire management due to the arrangement of high value community assets on private land and fire vulnerable regrowth forests on CALM-managed land.

The recommendation from the Ministerial Advisory Group (2.2.1) regarding the provision of additional fire suppression resources available to CALM is strongly supported. It should be noted, however, that additional fire crews will be needed not only to suppress wildfires but also to carry out additional prescribed burning on suitable days.

To enable CALM to take full advantage of the limited number of suitable burning days at different locations within the south-west forests, it is proposed that 25 additional fire fighters be hired for three months (mid September to mid December) of the spring-early summer burning period each year. This workforce would be fully equipped and mobile to undertake prescribed burns located throughout the south-west. It is estimated that this additional workforce will result in an increase of about 20 percent in the number of burns that can be safely completed. The cost of the 25-strong mobile force is estimated to be \$500,000/year and will need to be sought from sources outside of the current budget.

The recommendations (2.2.1 and 2.2.3) regarding increased aircraft capability are also strongly supported. Helicopters have been increasingly used for prescribed burning work and this trend is likely to continue, however fixed wing aircraft are more cost effective for the water bombing task.

For more than 35 years, aerial ignition has been conducted using fixed wing aircraft. Whilst these are relatively cheaper than helicopters, they do not have the flexibility and the productivity for ignition of small to medium-size burns (up to 3,000 ha). The accuracy, flexibility and productivity of helicopter ignition has been demonstrated over recent years. This year it has been decided to replace the fixed wing aircraft with two helicopters. It is expected that the overall costs will be approximately \$50,000 more than in previous years, but this will be offset by the improved capacity to ignite more burns on the few suitable days.

CALM and FESA are currently preparing a joint submission to extend the successful water bombing aircraft capability currently based in Perth to the South-West. A trial of two water bombers based in Bunbury during the current fire season is expected to commence soon. If this trial is successful, a fully operational deployment of water bombing aircraft can be implemented.

Currently an aerial suppression service using two large agricultural aircraft (Dromaders) is being provided for the outer-Metropolitan area within 50 km of Perth. These "water bomber" aircraft are part funded by CALM and FESA. The build-up of fuel loads in the south-west forests is now at such levels that initial attack by ground forces (CALM and Bushfire Brigades) has become extremely hazardous and ineffective. CALM believes that, on the basis of the evidence of increased wildfire risk, it is now necessary for the protection of south-west communities and forests that a second aerial suppression capability be based at Bunbury. This aircraft would be integrated with the existing Perth based aircraft to provide an improved initial attack service to the forests south of Jarrahdale. It is estimated that the provision of the additional aircraft in the south-west will cost \$400,000 per annum. Neither FESA nor CALM are able to fully fund this out of the current budgets, and therefore will need an additional appropriation from Treasury.

The reliance on the timber industry to provide heavy plant (bulldozers, loaders etc) for fire suppression operations on CALM-managed lands in the past will change as the reduced logging of karri forest and the shift to greater reliance on regrowth forest for log supplies occurs. The Ministerial Advisory Group has recommended that a wider network of standby contractors, for bulldozers and similar equipment, be arranged in response to these changes. This is a logical and straightforward approach that can be implemented as required.

The Ministerial Advisory Group recommendation regarding community education on the need for prescribed burning is endorsed.

It is clear that to gain greater public support for CALM's prescribed burning program, the public, media and decision makers need to be better informed on the factors that influence fire management, on the planning and implementation processes that must be followed to reach fire management objectives, and on the serious consequences to public safety and forest health that will occur in the absence of an adequate prescribed burning program. This will require a commitment from State Government and other relevant Government Departments to publicly support the essential role of prescribed fire for the protection of community assets and natural values within south-west forests and associated vegetation types. This was one of the main recommendations that came out of the Report of the Fire Review Panel set up by the Minister for the Environment in 1994 to review CALM's Prescribed Burning Policy and Practices.

A "Prescribed Burning Awareness Week" could be promoted similar to the approach used in Florida and other south-west states of USA. The production of a high quality documentary video, similar to that produced by the US Forest Service titled "On the Fire Line" would also be an important means of gaining public support.

The development and promotion of comprehensive public education and awareness programs will require a significant increase in resources and an injection of funding that is not currently available within CALM's budget allocation. This is estimated to cost \$100,000 per annum.

The reference by the Ministerial Advisory Group to recommendations by the Expert Panel on Ecologically Sustainable Forest Management in regard to burning of "flats"

and low woodlands has been addressed through a commitment in the Regional Forest Agreement, Attachment 5, Clause 9:

"At the next review of CALMfire process for setting priorities for the use of prescribed fire, reviewing and if necessary changing the weighting given to different values based on the principles of ESFM and current knowledge of the response and resilience to fire of ecosystems in the South-West Forest Region".

The need for further research on alternative methods of site preparation is acknowledged and a fully costed research working plan will be prepared.

One important matter not addressed in the Ministerial Advisory Group recommendations is the impact of altered cutting practices and coupe scheduling on the maintenance of strategic fire buffers in the Southern Forest Region. The strategic buffers are a cornerstone for effective fire management in that region. It will be necessary for CALM urgently to reassess the spatial arrangement of fire vulnerable regrowth and other high value assets and redesign the buffers accordingly. There will be an impact on the size, width and strategic location of the buffers, which will reduce their effectiveness and will not be fully compensated by the acquisition of additional fire suppression resources.

