FIRE MANAGEMENT IN THE TWO PEOPLES BAY - MANYPEAKS AREA

Discussion Paper, 14 January 2003
UPDATED DECEMBER 2003

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BACKGROUND

In recent years several wildfires (Figure 1) have impacted on habitat and populations of threatened birds in the Two Peoples Bay - Manypeaks area. Most of the eastern end of the Lakes and the Angove water catchment was burnt in a wildfire in December 2000. This fire burnt approximately 6300 ha, most containing habitat for a number of threatened species. A prescription burn with the objective of protecting threatened bird habitat and private property was carried out in September 2001 on the western side of Mt Manypeaks. The fire burnt beyond the original prescription boundary (approximately 85 ha), and approximately 650 ha was burnt in total. This was an open edged burn, and the result reflected the flammability of the vegetation at the time. Without intervention this fire could have seriously impacted on populations of a number of threatened birds. In addition an area earmarked as a possible translocation site for Gilbert's Potoroo was burnt as a result of the suppression activities. Several other wildfires in the area have been contained due to successful rapid suppression activities. *It should be emphasised that the final outcomes in these situations were largely mediated by the rapid response, some standard pre-fire suppression activities and moderate fire weather conditions. In different circumstances the impacts of these burns could have been devastating.*

Species known to be affected by the two major fires include the Noisy Scrub-bird *Atrichornis clamosus* (VU), Western Bristlebird *Dasyornis longirostris* (VU), and the Western Heath subspecies of the Western Whipbird *Psophodes nigrogularis nigrogularis* (VU). While there were no quantitative pre-fire data to determine impacts of the fires on bristlebird and whipbird populations, census data had been recorded for Noisy Scrub-birds prior to both fires. Other high conservation values in the area include the only population of Gilbert's Potoroo (CR) found on Mt Gardner, the Western Ground Parrot *Pezoporus wallicus flaviventris* (EN), and several species of Declared Rare Flora (DRF). Relictual invertebrates known from the Manypeaks area include *Neohomogona* sp. nov. The Western Ringtail Possum (VU) and Australasian Bittern (VU) are also known from the area.

The impacts of fire on threatened species habitat are directly related to frequency, timing, extent and intensity of fire. All these factors need to be considered in terms of the respective impacts on each threatened species and

need to be thoroughly detailed when planning for protection of habitat and prescription burns.

The two recent incidents highlight the need for a co-ordinated approach to fire management in this area. Biodiversity values are extremely high, and occur across much of the area in question (Figure 2). Endorsement of Recovery Teams for all species likely to be impacted should be obtained prior to any burn. Further, an agreed on pro-active approach that minimises the risk of a single wildfire event taking out the whole Manypeaks area needs to be endorsed by Recovery Team members as well as relevant DCLM Operations staff.

The original version of this paper was circulated among DCLM staff in late 2002. A two day workshop was held in Albany on the 12th and 13th of March 2003, and all input received prior to and during this workshop has been incorporated into this document in a general discussion in Appendix I. Outcomes and actions agreed to at the meeting are detailed in Appendix II.

OBJECTIVES:

1. To implement a management strategy that satisfies the needs of threatened species (fauna and flora) as well as the practical considerations with respect to fire management issues with neighbouring landholders in the Two Peoples Bay-Manypeaks area.

2. To reach an agreement on an approach to fire management that satisfies both threatened species recovery teams and fire management branch personnel.

3. To identify tools to be used in fire management

4. Enhance and protect habitat for threatened species.

Fire management in this area needs to be proactive - with threatened species conservation a primary objective. In saying this, concerns and values of adjacent landholders must be also be considered. Threatened species recovery teams need to work with DCLM Fire personnel to ensure outcomes that promote the long-term survival of threatened taxa, while accommodating other values such as private property.

ECOLOGICAL FIRE REQUIREMENTS OF THREATENED SPIECES

For most of the threatened species of fauna found in the Two Peoples Bay-Manypeaks area extensive wildfire is a key threatening process. Some species-specific information is available and included below.

Gilbert's Potoroo

The only known wild population of Gilbert's Potoroo occurs in the dense, long unburnt vegetation of the Mt Gardner headland. In the 19th century Gilbert's Potoroo was apparently locally abundant in the King George Sound area of the south coast. Fire has been identified as a key threatening process for this species (Courtenay & Friend, 2002).

Western Ground Parrot

Although recent records (last four years) of Western Ground Parrots are only from the eastern end of Waychinicup National Park (Figure 2) there is habitat that appears suitable for the species throughout the area that has not been recently surveyed. Post-fire requirements of this species in the swampy habitat currently occupied are poorly known. In dryer vegetation in the Fitzgerald River National Park (FRNP) birds have been known to move into a burnt area within six years of fire, but the densest population is in vegetation unburnt for more than 40 years. McFarland (1991) found that Eastern Ground Parrots were most abundant at certain times post-fire depending on the vegetation type.

Noisy Scrub-bird

The Noisy Scrub-bird has a requirement for habitat that has not been burnt for quite long periods (Danks *et al.*, 1996). A maximum post-fire age at which vegetation can support scrub-birds is not known, although this is likely to vary with different vegetation types. Bald Island has not burnt for over 100 years and the scrub-bird population on this island is still growing. Post-fire age of vegetation on Mt Gardner is in excess of 50 years and there is no sign of habitat becoming unsuitable for scrub-birds.

Conversely, scrub-birds have been observed to move into areas less than two years after a major wildfire event. This may be due to the rapid recovery of the particular vegetation type (sedges in a riparian area). However scrub-bird breeding is not known to occur in early succession vegetation types, and given the structural simplicity in the early stages and low leaf litter component it is considered highly unlikely.

Western Bristlebird

Although Western Bristlebirds have been observed to move into an area within eighteen months post fire there is no evidence to suggest breeding can occur after such a short time interval. Further, on Mt Gardner Western Bristlebirds persist in long unburnt vegetation (about 50 years post-fire). In FRNP bristlebirds are often concentrated near fire edges, but widespread fire is a problem in that suitable vegetation is removed completely and edges may not be accessible.

Declared Rare Flora

Several species of Declared Rare Flora are found on the Manypeaks Range including *Sphenotoma drummondii* and *Banksia verticillata*. The former species is an obligate seeder with a soil stored seed bank that should recruit well post-fire, providing intensity is not too great. *Banksia verticillata* is an obligate seeder with a canopy stored seed bank. An autumn fire is probably preferable to minimise the interval (and therefore predation or deterioration of seed) between seed release and germination in winter. Both species should have well established seed banks given the long fire interval although there may be a possibility of senescence and a deterioration of seed banks in the case of *B. verticillata*.

EXISTING FIRE STRATEGIES FOR THE AREA

For the purpose of this discussion paper the area in question has been divided in several sub-areas: (1) Two Peoples Bay Nature Reserve, (2) Angove Water Reserve, Waychinicup Water Reserve and Boulder Hill Reserve, and (3) Mermaid - Waychinicup - Manypeaks (Figure 1).

Two Peoples Bay Nature Reserve

Fire management on Mt Gardner is based on the guidelines in the Two Peoples Bay Management Plan (DCLM, 1995). Strategies include maintaining a strategic low fuel buffer (100-200 m wide) across the isthmus between the Lakes and Mt Gardner headland, maintaining water points on Mt Gardner (6), slashing of tracks on Mt Gardner and the maintenance of access tracks on Mt Gardner. These strategies are currently felt to be adequate for the protection of the known high conservation values. However, issues including track maintenance and regularity of slashing need to be considered with a view to improving protection of Mt Gardner.

Angove Water Reserve and Boulder Hill Reserve

There is currently an unwritten co-operative fire management arrangement in place with the City of Albany and Department of Environment, ~~Water and Catchment Protection~~. However, there is no active prevention process in place with respect to the management of threatened species in these areas. The City of Albany is the lead agency for any wildfire event in this area. The City's recent Draft Fire Management Strategy (REF) outlines the high conservation values in these reserves.

Mt Manypeaks and Arpenteur Nature Reserves - Waychinicup National Park

The Mt Manypeaks-Waychinicup area has several internal slash breaks on the western and northern boundaries. The Waychinicup River is not wide enough to act as a natural break, although the inlet would probably restrict fire moving along the coastal strip. The large area containing Mt Manypeaks and the ridge and flats to the north is approximately 4700 ha with no internal firebreaks. In 2001 this area contained approximately 55% of Noisy Scrub-bird territories, approximately 25% of Western Whipbirds and approximately 5% of Western Bristlebirds. The number of bristlebird territories is likely to be an underestimate, as surveys were not completed prior to the 2001 prescription burn.

Fire management strategies for this area are due for revision. The Interim Management Guidelines for Waychinicup National Park, Manypeaks Nature Reserve and Arpenteur Nature Reserve (one document) are currently being rewritten, however until such time as they have been reviewed fire protection strategies outlined in the Interim Management Guidelines will be followed.

Strategies included in the existing Interim Management Guidelines are:
? Maintenance of tracks,
? Establishment and maintenance of firebreaks and low fuel buffers,
? Prescribed burning operations,
? Fire suppression activities,
? Liaison with local community,
? Visitor protection and safety measures,
? Maintenance of water supplies, and
? Fire research and monitoring.

There is an Increased public interest in how DCLM manages areas of high conservation values and therefore it is in the Department's best interest to be in a position where relevant knowledge, conservation values and experience concerning fire management have been integrated in what we believe is an optimal manner. Following the recent fires it has become clear that the issue of prescriptions in sensitive areas such as this need at least to be endorsed and

supported by respective recovery teams as well as DCLM Operations staff. Currently there are arguments that the process of conducting prescription burns in sensitive areas such as this should be driven or at least initiated by recovery teams.

FIRE MANAGEMENT ISSUES

The priority fire management issue for this area is how to tackle the long-unburnt area containing the main ridge of Mt Manypeaks and the flats to the north of this area. A broad discussion on the options available for the management of this area is encouraged, and ultimately a solution will have input from members of recovery teams, experienced fire ecologists and DCLM operational fire personnel.

Also of great importance is identification of sources of funding to maintain existing fire protection measures. The real costs of minimising risks need to be considered. Current practices such as slashing low fuel buffers and breaks require significant funds. Options that might be deployed in prescriptions, such as use of helicopters for aerial ignition, and adequate standby crews are costly and must be considered when sourcing funding for management of nature conservation values, including threatened species and communities.

The concerns of adjoining landholders are for private property values, and these must be also be acknowledged and factored into any proactive management actions. Generally adjacent property owners have been valuable supporters of conservation works in these reserves.

The use of retardants in water bombing also needs to be considered if these are to be used as a tool for suppression in this area. There is some debate on the impacts of suppressants (Phos-Chek D75R and others) on soil biota, water quality and vegetation (CSIRO, 2000; Adams & Simmons, 1999). These need to be considered in light of the impacts of a wildfire versus the impacts of the chemical on the environment if suppression is successful.

Two Peoples Bay Nature Reserve

The current fire management strategies include maintaining low fuel buffers, water points, track slashing and maintenance, which to date have proved effective in stopping fire from crossing the isthmus between the Lakes and the Mt Gardner headland. A lightning strike on Mt Gardner itself could prove to be more difficult to control and, with the only extant population of Gilbert's Potoroo in this area, ideally such an event would be kept to a minimum size. Actions taken to minimise the risk of losing the entire area need to be done to maximise efficacy and efficiency of response.

Mt Manypeaks & Waychinicup National Park

The primary concern for this area is a wildfire in the large block of approximately 4700 ha between the western side of Mt Manypeaks and the Waychinicup Estuary. Current actions are to maintain existing low fuel slash breaks. Following discussions between fire operations personnel and several recovery team members, the following options were tabled for discussion. Relevant options are mapped in Figure 3.

1. Implement a mosaic burning regime using aerial ignition techniques to burn from the ridge of Mt Manypeaks (ie at high elevation), in very mild conditions.
   The aim is two-fold - to slow (or if possible, stop) any wildfire and, through provision of a mosaic of fire ages, to provide potential refuge areas for Noisy Scrub-birds and other threatened species in the event of a wildfire.
   This option presents a risk, and would require very careful and thorough planning to be conducted effectively. It does allow the use of fire as a management option under mild fire behaviour conditions, which are unlikely to be encountered in a wildfire. The costs of using helicopters for aerial ignition would be high, but this is the only practical option for this type of operation. It would also be prudent to have aerial suppression capacity close at hand (on standby at Albany airport), and support personnel in situ *should a rapid response be required; however, the water bombers are normally only available from mid-December to mid-March. These options are also costly. Provision of adequate resources must be addressed during preparation of the burn prescription.*
   In order to make this a viable approach to fire management for maintenance of conservation values, initial attempts would need to be under extremely mild conditions. We propose that any such ignition is attempted first high on the ridge (Figure 3) but in order to create a mosaic of sufficient extent to be of value in slowing a wildfire, this area would need to be extended after initial experimentation and careful consideration of the results at each stage. Two questions remain:
   (1) over what area would this need to extend in order to make a real difference in the face of wildfire? and
   (2) what short-term impact would this have on populations of threatened flora and fauna, particularly Noisy Scrub-birds?

2. Leave things as they currently are.
   To date we have been <u>extremely</u> lucky that a major fire has not impacted on the area. In recent years there have been a number of 'near misses' through lightning strikes and deliberate lightings. Leaving things as they currently are also involves taking a risk, which has been acknowledged by members of relevant Recovery Teams, the community and District Operations and Nature Conservation staff. The area was last burnt in 1979 and the area contains long unburnt, highly flammable fuel. From a Departmental perspective if a major wildfire does impact on the high

conservation values we will undoubtedly be seen to have been negligent (ie acknowledging the risk, but doing nothing to minimise it).

3. Create a slashed break(s) that runs due south from Circuit Road to approximately 100-200 m elevation.
   This option would provide some opportunity for fire fighter access or back-burning under mild conditions only, and would be restricted to the northern slopes of the Manypeaks ridge. It would not stop the progress of a wildfire unless conditions were extremely mild. Consideration for the safety of fire-fighting personnel would limit the use of these tracks in a wildfire situation. Opening up one or more slash breaks would create a large disturbed area on the northern slopes, and provide additional incentive for illegal access.

4. Implement a mosaic burning regime utilising edge burning or wind-driven strips lit off Circuit Road and existing slash breaks.
   Any prescribed burning in this area using either technique implicitly involves taking risks. Furthermore, the area of the reserve dictates that these techniques would only really be effective in creating a mosaic of fuel ages around the perimeter of the reserve. This may be of value for neighbouring landholders and their assets, but still leaves the body of the reserve prone to broad-scale fire events.

5. Open up old track onto the ridge. This extends to the base of the main Mt Manypeaks Ridge.
   This option does provide some limited access opportunities under extremely mid fire conditions, but in a wildfire situation serves no purpose. As per point three above the issues of safety of fire-fighting personnel and additional incentive for illegal access are relevant.

Angove Water Reserve, Waychinicup Water Reserve, Boulder Hill Reserve

Vesting for the Water Reserves is with the Department of Environment, Water and Catchment Protection, and Boulder Hill Reserve is vested with the City of Albany. All three of these Reserves contain significant populations of threatened species and are contiguous to DCLM managed reserves. Although no formal fire management is conducted in these areas DCLM should be involved in ensuring that fire prevention processes and on-ground actions required for protection of threatened species are carried out. A meeting with relevant agencies to discuss fire management issues on these reserves is recommended.

WHERE TO FROM HERE?

It was our hope that this paper would promote discussion and debate on the available options for proactive management and fire suppression in an area with extremely high biodiversity conservation values. In particular we were seeking to get feed-back on the various options presented for management of the Mt Manypeaks area. Consensus on the preferred strategies to be used in this area was also considered a highly desirable outcome

WORKSHOP

On the 12th and 13th of March 2003 a workshop was held in Albany to discuss the issues raised above and to address the objective of finding recommendations that were the most appropriate for fire management of this area.

Eleven staff from CALM Science, WATSCU, CALM Fire, and the South Coast Region attended the workshop. On the 12th of March participants were given the background to this discussion paper and then a field trip took the group to look at fire management issues on Mt Gardner at Two Peoples Bay, the Angove Water Reserve, UCL north of Mt Manypeaks and Waychinicup National Park.

On the 13th the workshop participants discussed the issues relating to fire management in this area, addressed the strategies outlined above and agreed on actions and recommendations for fire management.

SUMMARY OF WORKSHOP DISCUSSIONS, ACTIONS AND RECOMMENDATIONS

Discussions following field trip

Several issues not discussed in the original version of the discussion paper were raised during the two day workshop, and all participants expressed an appreciation for the field trip giving a better insight to the difficulties of management and high biodiversity conservation values of the area.

The approach of adaptive management in relation to fire was espoused by workshop participants who were keen to see integration of fire management with other activities and increased baiting.

Full details of comments received on the draft discussion paper, discussions held during the workshop, recommendations and actions arising from the meeting are contained in the Appendices, with key recommendations and actions summarised below.

SPECIFIC RECOMMENDATIONS RELATING TO FIRE MANAGEMENT

? Continue to maintain current low fuel buffer system for Mt Gardner.

- ? Widen and consider burning some areas within established Mt Gardner buffer zone to add width and strength.
- ? Consider use of water bombers for routine suppression of fires in the Mt Gardner - Manypeaks area.
- ? Prescription burning on Mt Gardner is not to be considered as a tool for management.
- ? Mt Gardner track network needs to be upgraded to a level that permits rapid and safe access for fire suppression vehicles.
- ? Draft recommended strategies to be undertaken for Manypeaks Ridge area.
- ? Use terrain modelling and fire monitoring to develop monitoring and experimental procedures related to any prescribed burning operations.
- ? South Coast Region to consider re-opening moves for vesting of UCL Waychinicup River Catchment area in Conservation Commission of WA.
- ? Identify areas where we can improve fire management for biodiversity conservation and public satisfaction in the Two Peoples Bay- Waychinicup National Park area.
- ? Draft strategies for the co-operative management of non-CALM estate, formalising agreements with other land managers.
- ? Identify sources of funding for additional works proposed.

SPECIFIC ACTIONS & RESPONSIBILITIES

ACTION	RESPONSIBILITY
1. Develop options for forward basing aircraft at Albany for aerial water bombing	R. Sneeuwjagt, G Broomhall
2. Expand current joint approach between CALM/FESA and assess potential for tree industry input	R. Sneeuwjagt, G Broomhall
3. Further develop overall requirement for the Mt Gardner track network and identify potential funding mechanisms.	G. Broomhall, N. Scott, S. Comer
4. Discuss and follow up on vesting of UCL Waychinicup River Catchment area.	South Coast Region
5. Obtain comprehensive terrain modelling of Mt Manypeaks	R. Sneeuwjagt
6. Develop options for improving firebreaks and fuel reduction east and west of Waychinicup River	G. Broomhall
7. Collaboration between CALM Science and CALM Albany staff on development of monitoring and experimental procedures related to prescribed burning.	N. Burrows, L. McCaw, S. Comer
8. Circulate new draft of CALM policy on fire management	R. Sneeuwjagt
9. Identify areas where fire management for biodiversity conservation can be improved.	G. Broomhall, S. Comer
10. Convene working group with relevant authorities to develop fire management arrangements in the Angove Reserve	CALM Albany
11. Finalise discussion paper to be circulated throughout Department before taking to public forum	S. Comer, A.H. Burbidge.

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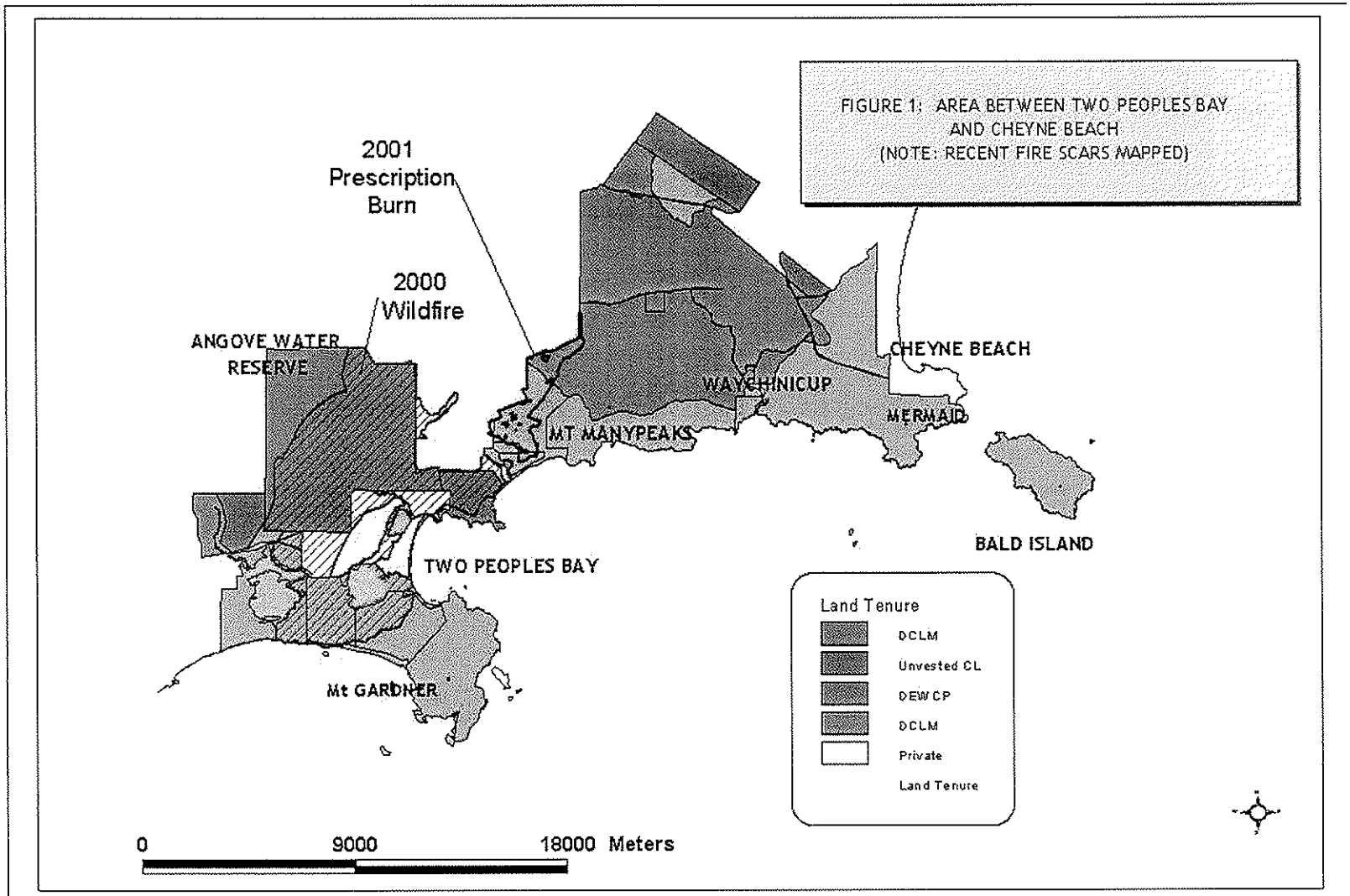

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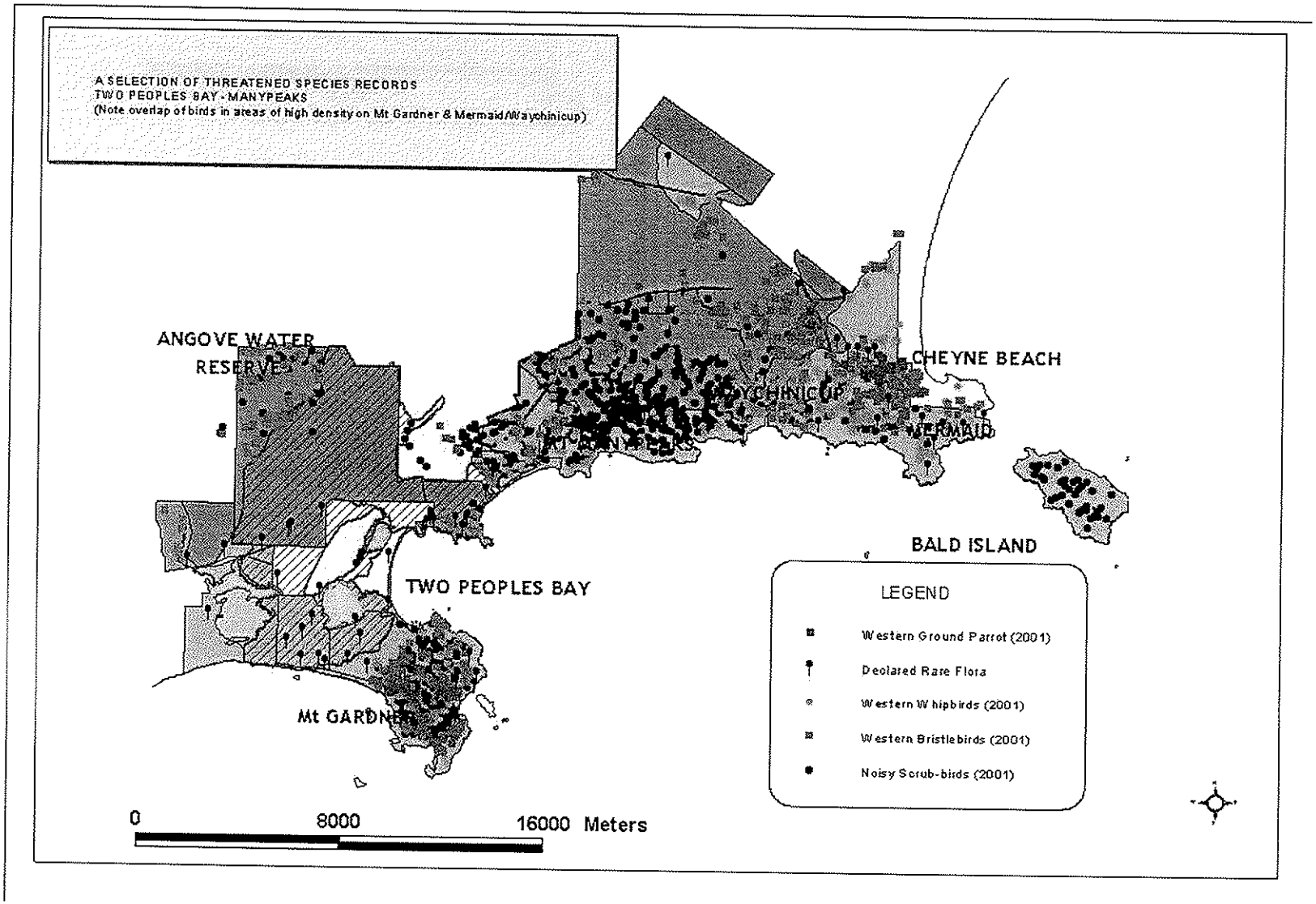

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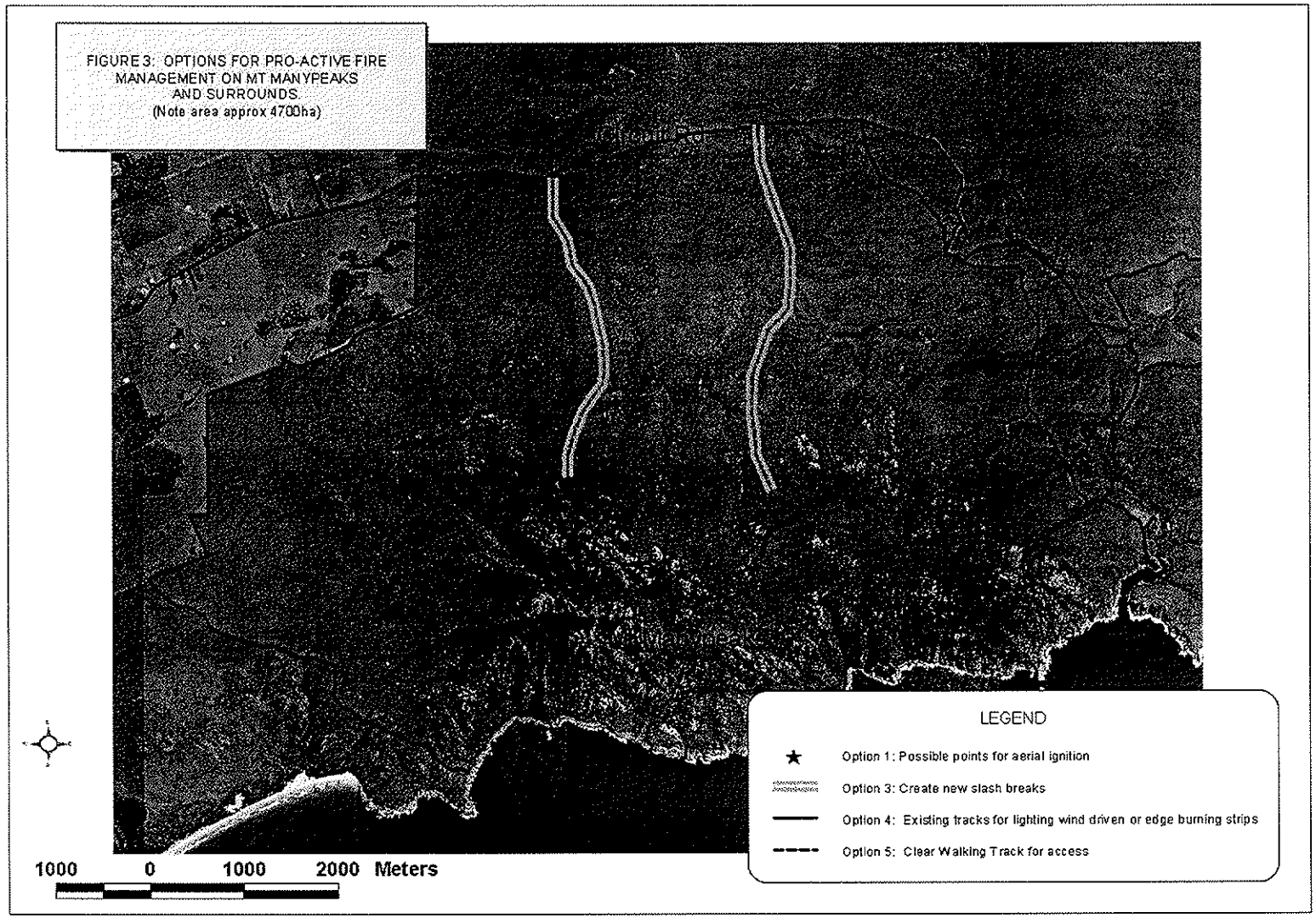

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APPENDIX I

COMMENTS RECEIVED

The circulation of this paper and subsequent two day workshop held in Albany on the 12th and 13th of March promoted vigorous debate and some positive input into the process of managing fire in this sensitive area. These key issues arising from this input have been included below.

Fire and information systems

One issue highlighted during discussions was the fact that the area earmarked as a potential translocation sight was unknown to operational staff who were engaging in suppression strategies. Although the area was excluded from the original burn prescription area this highlights the importance of communicating nature conservation objectives and plans to operations levels.

Comments on threatened species

Fire is recognised as a key threatening process to the extant population of Gilbert's Potoroo on Mt Gardner. However, given the limited numbers and extent of the species in the landscape, and the difficulties inherent in studying potoroos, there is little information on the species ability to colonise and recruit in recently burnt landscapes.

In general improved understanding of the fire sensitivity and critical life cycles of threatened fauna and flora and documenting knowledge and data gaps is desirable.

Existing fire strategies

Current strategies deployed to protect the Mt Gardner headland were thought to be in need of improving to ensure response to a wildfire was possible under high FDI [Fire Danger Index] and low SDI [Soil Dryness Index] situations. Safety of fire fighters, and current fuel load (>25 Tonnes/ha) of high concern, and these need to be weighted against very high nature conservation values. Comment was that existing strategies for this area should be reviewed.

Options presented for Mt Manypeaks.

Option 1. It was agreed that creation of a mosaic for this area is desirable, however considerable work needs to be done on assessing likely behaviour of fire prior to developing any prescriptions for this area.

Option 2. Workshop participants and comments on the draft agreed that we were taking an enormous risk in not addressing fire management on Mt Manypeaks. Existing measures should be continued (ie slash breaks) but more needs to be done to protect this high conservation value area.

Option 3. The creation of a slashed break running south from Circuit Rd was not considered to be a favoured option due to the terrain and disturbance that would be caused.

Option 4. The option of open-edged burning was acknowledged to have inherent risks, however there were several areas identified that may be suitable for establishing wind driven strips off tracks. Generally it was felt that prescriptions should not be considered until we had better information on likely fire behaviour, terrain modelling etc.

Option 5. Was not supported.

Fire management on non-CALM land

Non-CALM land with high biodiversity and threatened species values were thought to be a priority for establishing co-operative fire management. A suggestion was also made that there should be a request that 'conservation' be added to the list of purposes for specific non-CALM reserves, and there be a requirement for the main vesting body to consult with us on any operations.

Community consultation

It was agreed that communication and consultation with the scientific community, recovery teams, local interest groups and the general community was important. Key elements of this communication should acknowledge the inherent risk in all areas of fire management, from prescriptive activities to not increasing the work currently done.

APPENDIX II

MINUTES OF ALBANY MEETING 12-13 MARCH 2003

DRAFT ONLY 10-12-03

FIRE MANAGEMENT
TWO PEOPLES BAY - MT MANYPEAKS

DRAFT MINUTES

of a workshop held at Department of Conservation & Land Management, ALBANY on 12-13 MARCH 2003

to explore fire management options for threatened species based on the discussion paper:
"Fire management in the Two Peoples Bay - Mt Manypeaks Area"

OBJECTIVE:TO ACHIEVE CONSENSUS BETWEEN RECOVERY TEAM MEMBERS AND FIRE MANAGEMENT PERSONEL ON THE MOST APPROPRIATE ACTIONS FOR PRO-ACTIVE FIRE MANAGEMENT IN THE TWO PEOPLES BAY-MANYPEAKS AREA.

Present: Allan Burbidge (Science Division, Woodvale), John Blyth (WATSCU), Sarah Barrett (Flora Conservation Officer, Albany), John Watson (Regional Manager, South Coast), Sarah Comer (Ecologist, Albany), Greg Broomhall (Regional Fire Coordinator, South Coast), Rick Sneeuwjagt (Manager, Fire Management Services), Roger Armstrong (Fire Management Services, Bunbury), Neil Burrows (Director, Science Division, Kensington), Tony Friend (Science Division, Albany), Alan Danks (Regional Leader Nature Conservation, South Coast)

Apologies: Lachie McCaw, Peter Bidwell, Donna Green, Neil Scott, Mal Grant, Kim Williams

Wednesday, 12 March:

Background to the discussion paper, threatened species values and fire management issues in the area between Two Peoples Bay and Waychinicup National Park was provided (Alan Danks, Sarah Comer).

A field trip then took participants to Mt Gardner at Two Peoples Bay, the Angove Water Reserve, UCL north of Mt Manypeaks and Waychinicup National Park. Recent wildfires in this area and the suppression strategies used, terrain and access constraints in the mountain areas, fuel loads, and possible options for improving fire management were discussed during this trip.

Thursday, 13 March

1. Summary of comments and additional issues arising from Wednesday's field trip

Participants expressed appreciation for the field trip as an opportunity to gain a better understanding of the issues through a closer, on-ground look at the sites. The difficulties presented by steep terrain, minimal access and very high threatened fauna values were better understood.

Neil Burrows - Neil wanted to ensure that we take an adaptive management approach when dealing with fire in this area. He also wants to see the decision process for exploring options clearly laid out. Suggested baiting should be increased immediately after wildfires (already done) and would like to see more integration of (fire management with) other activities.

Mt Gardner

Rick Sneeuwjagt - concerned that Mt Gardner is very vulnerable to wildfire due to both high fuel loads and difficult terrain. Access is an issue.
The current strategies (mechanically maintained low fuel buffer) for this area are good. Suggested buffers probably need strengthening - physical widening is appropriate in some areas, suggests also burning within established buffer zone as a way to add to width.

In his opinion, if response is quick enough wildfire on Mt Gardner can be dealt with in most situations.

Water bombers should be routinely used for fire suppression in this area. Discussed options for basing aircraft in Albany.

ACTION: R SNEEUWJAGT/G BROOMHALL TO FURTHER DEVELOP OPTIONS FOR FORWARD BASING AIRCRAFT AT ALBANY FOR AERIAL WATER BOMBING. AIM TO EXPAND CURRENT JOINT APPROACH BETWEEN DCLM/FESA AND ASSESS POTENTIAL FORTREE INDUSTRY INPUT.

Prescription burning on Mt Gardner is not an option

Neil Burrows - expressed concern with the situation for Gilbert's Potoroo. Single, very small and highly vulnerable population. There is a need to review the urgency of translocation for this species (Recovery Team, Science Division). This also highlights additional requirement for sound fire management response processes.

Rick Sneeuwjagt - Given risk of lightning strike on Mt Gardner is medium to high, Rick questioned the suitability

of the existing tracks to permit rapid and safe access by fire suppression vehicles. General consensus was that they need upgrading, but funds are limited for the required work. Suggested that crews from other SW districts could assist with this. (Greg thought that this would not be a complete solution, as funding would still need to be found to support this work in the Region)

Sarah Comer - Neil Scott has prepared an assessment of the status of tracks on Mt Gardner, and given areas a priority rating. Some funds were made available for the most urgent work, and this is currently being completed. For the entire system to be upgraded to a high standard (for trafficability) was estimated by Neil to be in the order of $200 000 (Sarah to check this figure).

ACTION: NEED TO FURTHER DEVELOP OVERALL REQUIREMENT FOR THE MT GARDNER TRACK NETWORK AND SEEK APPROPRIATE FUNDING/IDENTIFY POTENTIAL FUNDING MECHANISMS (GREG BROOMHALL, NEIL SCOTT, SARAH COMER).

Roger Armstrong - we need to think about four key things when reviewing our options:

1. Protection from outside
2. Suppression from the inside
3. Prescriptions for biodiversity - include values and costings
4. How do we include other stakeholders

2. Draft recommended strategies to be undertaken for Manypeaks ridge area.

Rick Sneeuwjagt - management of the UCL Waychinicup River Catchment area needs to be clarified.

John Watson - South Coast Region should consider re-opening moves for vesting of this Reserve in CCWA .

ACTION: SOUTH COAST REGION TO DISCUSS AND FOLLOW UP VESTING OF THIS AREA

Rick - It is too early to consider prescription burning in this area.

On the Manypeaks ridge there are opportunities for increasing access for hand crews. Terrain modelling would be a useful management/planning tool.

ACTION: RICK TO FOLLOW UP ON OBTAINING COMPREHENSIVE TERRAIN MODELLING OF MT MANYPEAKS.

Alan Danks - due to recent fires, low fuel areas exist around the perimeter of the Manypeaks ridge block on the west and north. Improvements are needed particularly in the eastern areas where additional pre-suppression fuel reduction and upgrading of slashed breaks should be considered.

ACTION: GREG TO DEVELOP OPTIONS FOR IMPROVING FIREBREAKS FUEL REDUCTION EAST/WEST OF WAYCHINICUP RIVER.

Neil Burrows- Current knowledge of fire behaviour in this area should be improved before we make the decision to use prescription burning as a management tool. IN particular, we need to develop an understanding of the changing moisture regimes and flammability of various vegetation/fuel types throughout the year and across the Manypeaks landscape. We also need to explore the potential to utilise moisture differentials and other natural barriers to fire spread to control patch-burning e.g., winter burning on northern aspects etc. There is an urgent need to improve the knowledge base regarding fire behaviour under different drought and moisture profile conditions.

ACTION: NEIL BURROWS TO APPROACH LACHIE MCCAW TO COLLABORATE WITH DCLM ALBANY STAFF TO DEVELOP MONITORING AND EXPERIMENTAL PROCEDURES RELATED TO ANY PLANNED PRESCRIBED BURNING,

John Watson - in the discussion paper we need to change the wording so that by "do nothing" it is clear that we mean "do nothing in addition to what is already being done".

ACTION : RICK TO CIRCULATE NEW DRAFT OF POLICY STATEMENT ON DCLM FIRE MANAGEMENT TO THIS GROUP.

3. Identify areas where we can improve fire management for biodiversity conservation and public satisfaction on DCLM estate in the Two Peoples Bay - Waychinicup National Park area.

Waychinicup -

- look at possible buffer burns and areas where strategic slashing can be used to the east of Waychinicup River.
- Mechanical fuel reduction - broaden existing slashing, new slashing options to be investigated and should include Waychinicup Rd (ie east of river as per point above).
- Fuel moisture/fire behaviour is a research priority
- Suppression response - there is no specific plan, management fits under zone A reserve. Brigades are Manypeaks and Kalgan.
- Habitat burns will be dependent on outcomes of research and reflect adaptive management principals.
- Visitor protection - campsite and Cheyne Beach identified. Evacuation of campsite - options are in place including road closure.

? Water supplies - confirm access to dams on private property, also investigate river points on the Waychinicup River

Two Peoples Bay, and specifically Mt Gardner is covered in 1 (above)

4. Draft recommended strategies for co-operative management of non-DCLM estate - what sort of arrangement should we be working towards? Will DCLM involvement in off estate management be supported when high biodiversity conservation values are at stake?

Rick Sneeuwjagt - the Angove Water Reserve needs a formal agreement. A plan should be put together now for future management of this area. If DCLM can co-ordinate management there is a possibility we can get DEWCP/Water Corp to fund.

Roger - in developing arrangements for the Angove Water Reserve we need to recognise the opportunity to do some burning in this area.

John Watson - agrees that we need to be dealing with other land managers.

Rick - we need to get recognition that fire is detrimental to their services. Other managers identified are Water Corp, DEWCP, City of Albany, various tree farming groups, and land holders

ACTION: ALBANY WORK CENTRE TO CONVENE A WORKING GROUP WITH RELEVANT AUTHORITIES TO DEVELOP FIRE MANAGEMENT ARRANGEMENTS AS SOON AS POSSIBLE, TO TAKE ADVANTAGE OF THE CURRENT LOW FUEL LEVELS ACROSS THE RESERVE.

ACTION: UTILISE RECENT FIRES AS AN OPPORTUNITY TO MONITOR POST-FIRE RECOLONISATION OF WBB AND NSB (ACTION FOR RECOVERY TEAM).

5. Funding - where will the extra dollars and resources we need to implement this work come from? Without it we can't progress. Who is responsible for driving outcomes of today?

Sources of funding need to be identified
Funding for pre and post-fire monitoring can be assisted by community groups (Friends of etc)
Commonwealth (for works through threatened species support)
SCRIPT
Internal funds? Would need to have support of Corporate Executive.

Limited UCL funding is available for strategic slashing and access.
Where do we find funding for extra slashing at Two Peoples Bay?

Noisy Scrub-bird funds will be used for post-fire monitoring in the Angove if funding application is successful.

The outcomes of today's meeting will be driven by individuals identified in ACTION items and momentum maintained by SC Regional staff.

ACTION: ALLAN AND SARAH WILL WORK ON FINALISING A DRAFT OF DISCUSSION PAPER TO CIRCULATE THROUGHOUT THE DEPARTMENT BEFORE WE TAKE THIS TO A MORE PUBLIC FORUM.

6. Other issues with biodiversity conservation on the south coast: ie Stirling Range NP & Fitzgerald River NP.

Sarah Barrett - gave brief summary of the impact of fires in the last 10 years on threatened species and TECs in the Stirling Range National Park. Highlighted importance of fire interval for some CR species of flora. There was very low seed set on some species after the 1991 fire, and these were then burnt again in 2000 wildfire. Also at stake in the SRNP are populations of threatened invertebrates.

Sarah Comer and Allan Burbidge provided a brief outline of issues in relating to the Western Ground Parrot in FR10 management cell in the FRNP. Consideration needs to be given to options for protection in this cell. This issue is currently being addressed by the FRNP fire working group.

For both areas high conservation values need to be identified, and options for management discussed in a similar context to the TPB-Manypeaks paper. Current fire management practice (as identified in relevant DCLM Management Plans) need to be considered.

Greg Broomhall pointed out that the recent prescription burns in the SRNP have been done to a high standard and for nature conservation objectives. Also suggested that a member of the nature conservation group attend the next fire advisory group meetings for the SRNP and FRNP.

ACTION: DRAFT DISCUSSION PAPERS ON FIRE MANAGEMENT ISSUES FOR SRNP AND FRNP AND CIRCULATE TO GROUP. SARAH B, SARAH C, ALLAN B, GREG B.

ACTION: GREG TO ADVISE SARAHS OF DATES FOR NEXT FIRE WORKING GROUP MEETINGS.