



DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

FOREST PLANNING

FUTURE DIRECTIONS IN PLANNING

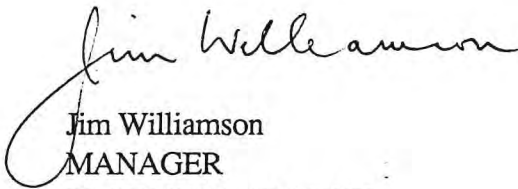
**SUMMARY OF A WORKSHOP HELD ON TUESDAY 22
AND WEDNESDAY 23 SEPTEMBER 1992
AT CALM, DWELLINGUP**

Edited by
Aminya Koch
September 1992

PREFACE

This is the seventh in our series of planning workshops and it focussed on forestry planning and on future directions in planning. It was appropriately held in the former Dwellingup cadet school with the jarrah forest nearby. Those attending were a productive mixture of planners, district staff and specialists from other branches.

I would like to thank those who presented papers, those who took part in the discussions and Aminya Koch for collating and editing this summary.



Jim Williamson
MANAGER
PLANNING BRANCH

CONTENTS

	Page
1. WORKSHOP PROGRAM 	1
2. INTRODUCTION	
2.1 Welcome	3
2.2 Planning Overview and Future Direction/Priorities Discussion	4 4
2.3 Introduction to Forest Planning Discussion	5 7
3. FOREST PLANNING (PART ONE)	
3.1 Prescriptions for Disease Control	8
3.2 Prescriptions for Weed Control	9
3.3 Prescriptions for Feral Animal Control Discussion	10 11
4. CREATIVE PLANNING - PRO-ACTIVE RESPONSE TO CULTURAL CHANGE	
4.1 Efficiencies in Planning	12
4.2 Keeping Our Publics Involved - Doing More and Better (With Less)	13
4.3 Transferring to a New Management Ethos Discussion	14 15
4.4 A Case Study in Integrated Planning: Shark Bay World Heritage Area	16
5. TRANSFERRING OWNERSHIP OF THE PLAN (DISCUSSION SESSION)	
5.1 A State Perspective	17
5.2 A Regional Perspective	17
5.3 A District Perspective (Shark Bay)	17
6. FOREST PLANNING (PART TWO)	
6.1 Prescriptions for Silvicultural Management	18
6.2 Prescriptions for Fire Management	19
6.3 Prescriptions for Mining and Water Resource Management	20
6.4 Prescriptions for Landscape Management Discussion	21 23
6.5 Recreation Planning Discussion	23 25
APPENDICES	
1. List of Participants	26
2. Goldfields Region Contribution to Workshop	27
3. Visual Landscape Assessment: Broad Scale Planning Level	28
4. Visual Management System: Project Application Level	29

1. WORKSHOP PROGRAM

Tuesday 22 September

INTRODUCTION - Chair: Jim Williamson

9.00 am	Welcome	Jim Williamson
9.10 am	Planning Overview and Future Directions/Priorities	Chris Haynes
9.40 am	Discussion	
10.10 am	Introduction to Forest Planning	Bob Chandler
10.30 am	Discussion	
10.40 am	Morning Tea	

FOREST PLANNING (PART ONE)

11.00 am	Prescriptions for Disease Control	Elaine Davison
11.30 am	Prescriptions for Weed Control	Alex Moylett
12.00 pm	Prescriptions for Feral Animal Control	Jack Kinnear
12.30 pm	Panel Discussion	
1.00 pm	Lunch	

CREATIVE PLANNING - A PRO-ACTIVE RESPONSE TO CULTURAL CHANGE - Chair: Allan Padgett

2.00 pm	Efficiencies in Planning	Ian Herford
2.20 pm	Keeping our Publics Involved - Doing More and Better (With Less)	Allan Padgett
2.40 pm	Transferring to a New Management Ethos	Colin Ingram
3.00 pm	Panel Discussion	
3.40 pm	Afternoon Tea	
4.00 pm	A Case Study in Integrated Planning: Shark Bay World Heritage Area	Ron Shepherd
4.20 pm	Discussion	
6.30 pm	Dinner	

TRANSFERRING OWNERSHIP OF THE PLAN (DISCUSSION SESSION)

		Chair: Kate Orr
7.30 pm	A State Perspective	Jim Williamson
8.00 pm	A Regional Perspective (Wheatbelt)	Anthony Sutton
8.30 pm	A District Perspective (Shark Bay)	Ron Shepherd

Wednesday 23 September

FOREST PLANNING (PART TWO) - Chair: Ian Herford

8.30 am	Prescriptions for Silvicultural Management	Jack Bradshaw
8.50 am	Prescriptions for Fire Management	Keith Low
9.10 am	Prescriptions for Mining and Water Resource Management	Denise Allen
9.30 am	Prescriptions for Landscape Management	Grant Revell

9.50 am	Panel Discussion	
10.30 am	Morning Tea	
10.50 am	Recreation Planning	Tracy Churchill
11.20 am	Discussion	
11.50 am	Depart for picnic area/lunch	
12.30 pm	Field Trip-	
	• Fire Management (major focus)	Keith Low
	• Mining and Water Resources	Denise Allen
	• Recreation	Tracy Churchill
4.15 pm	Summary	Jim Williamson
4.30 pm	Close	

This two day workshop was held on 22 and 23 September, 1992 at Dwellingup. The planning workshop focused on the two major areas, forest planning and future planning. A total of up to 25 CALM staff attended the workshop (see Appendix 1 - List of Participants and Appendix 2 - Goldfields Region Contribution to Workshop).

The aims of the workshop were:

- To update planners knowledge of forest management issues, and how this is relevant to planning for conservation reserves.
- To inform planners of messages and concepts that are coming out of recent developments in forest management which have implications for CALM's management of WA's conservation estate and for the preparation of management plans.
- Inform planners on how they are going as a group.

2. INTRODUCTION

2.1 Welcome - Jim Williamson

Welcome to all that are attending the workshop. This is the 7th planning workshop that has been held.

The first workshop was at Woodvale and involved other agencies and their approach to planning. The second, in May 1988, was at Murdoch House and involved producing the 39 steps. The third workshop at Murdoch House was in August 1989 and saw the launch of the technical officers manual. The fourth held in November 1989 at Murdoch House had a theme of zoning. The fifth, also at Murdoch House, in July 1990 was based on public participation. The last workshop was held at Kalgoorlie in June 1991 and looked at consistency of goals and objectives.

The theme of this workshop is future directions and forest planning and we are fortunate to have a wide variety of speakers. The ownership of management plans by CALM staff, controlling bodies (NPNCA, LFC), the government, stakeholders and the community at large is an essential part of the planning process. It takes time for everyone to feel comfortable about the changes proposed in a plan. Workshops, submissions, meetings and discussions are some of the effective ways of achieving ownership of a plan in a reasonable time. It is also important that management plans are user friendly.

Everyone should be aware that there is a new CALM Act and there are a few changes that are relevant to planning. These include:

- The public submission time is determined by the Executive Director.
- Changes have been made to the purpose of State forest.
- Variations in the 'Classification of Land'; wilderness can now be in all classes of land, not just National Park.
- In Marine Parks, when taking of fish is involved, the Minister for Fisheries must approve that part of the plan.
- Temporary control areas can now be created.

It is worthwhile bearing in mind why we are planning. A succinct statement is provided by the mission statement and derived outcomes (performance indicators) from an earlier in house planning branch seminar.

Mission: To conserve Western Australia's natural and cultural environment in perpetuity.

Desired outcomes: The extent to which:

- biodiversity is maintained.
- recreational diversity is maintained.
- representative ecosystems are reserved.
- degraded areas are restored.
- production is sustainable.
- cultural integrity is maintained.
- stewardship is developed.

Finally I would like to thank Allan Padgett for organising this workshop while I was on long service leave.

2.2 Planning Overview and Future Directions and Priorities - Chris Haynes

We must have management plans. There are 1300 reserves to produce plans for. We have produced 20 management plans in 7 years and have put in a lot of hard work. Although it has taken us 7 years we have gained and achieved a lot on the way. We have established recreation and conservation policies, a planning system and culture while making these plans. While making the plans we've listened to all sides of the community and used technical information to make decisions. It has taken a long time but we've achieved so much along the way.

We have now reached a point where there is no longer chaos and a huge demand for management plans. So we can now chart our course of where we are going. We should steer towards a direction that is the most beneficial and advantageous. Part of this workshop will be discussing the most efficient ways of producing management plans. An example of this is doing plans in groups, such as with the Stirlings and Porongorups. The priorities for plans have been redefined and changed from 5 years to 2 to 3 years. The emphasis will now be on plans that will bring in money, and resolve complex recreational and conservation problems.

We should also have a broader vision when thinking about planning. Things going on in the world are relevant to what we do and can cause changes. It is important we are adaptable to these changes for maximum efficiency. Understanding our environment is important to our planning. We should also use these changes and opportunities to do new things in new ways. New opportunities come from public participation, workshops, advisory committees, and follow ups to workshops. These help us to do our jobs more effectively and to get it right the first time.

DISCUSSION

- Compatible operations or projects in the CALM Act (relevant section). The example in Torndirrup National Park.
- The use of necessary operations and issue guidelines, which can be finalised, instead of management plans, which often cannot be finalised. Different directions that can be taken from management plans.
- The need for management plans.
- Philosophical effect of management plans. The effects on community views and the establishment of culture.
- Chances for diversity in planning.
- Public submissions. Is there more we can do? ie. market research.

2.3 Introduction to Forest Planning - Bob Chandler

You are going to have two days of detailed discussion about the technical components of forest planning, so I won't go into any of that detail. I am going to talk about the broad background history of forest planning and the planning we have evolved into. I'm going to split the history into four sections.

1. *Potted History*

In the early days when the world was wide and life more leisurely planning was a fairly simple process being mostly operational planning for roading, logging, fire suppression, and silviculture. Various extra planning tasks were added over the years as the forest catered for more uses:

- Hazard reduction burning.
- Inventory systems.
- Dieback management and quarantine.
- Catchments and hydrological management.
- Increasing recreation uses.
- Conservation management priority areas.
- Mining on a large scale.
- Multiple use planning.
- EPA Redbook approach - conservation through reserves.
- Intensification of all finds of research, especially hydro and dieback.
- Introduction of integrated logging concepts.
- Conservationists and issue driven political/policy formula.
- CALM - a new form of conservation through reserves - NPNCA, LFC.
- 'Peoples Plans' - community planning as CALM evolved its consultative planning process.
- Groping towards integrated land use planning on a whole of Government basis:
 - catchment plans
 - Rural/Regional plans (DPUD)
 - Land care groups
 - Heritage planning (State and Federal)

2. *The Changing Face of the Planner*

Now you may think that the changing face of the planner is an unilateral decline from smooth faced to haggard. However there is a notable exception right here in our midst, none other than Jim Williamson.

Jim has transcended the 3 stages of planning with narry more than the laughter creases around his mouth and his eyes. So I will use him to illustrate the first planning age. This was the Forests Departments Epoch. It was an era of gentlemen planners. In those days Inventory Branch and Planning Branch were one and the same. Initially their task was simple. Find out how many trees we've got and what's in them! It was Jim himself that brought down the curtain when he produced GWP 87 with its radical recognition of forests reserves for conservation.

The next period was the age of the Regional planners. This resulted from functionalisation when the woodchip industry came and the Forests Department was regionalised. Regional

planners found themselves not only dealing with tricky technical questions of timber supply and silviculture but also a growing number of other land use issues eg. hydrology, conservation, recreation.

The third is the CALM period. The planning role was split between the Regional planners and the new Planning Branch and new types of planners turned up. We became involved with people from DPUD, WAWA, EPA, Shires, Heritage Commission and consultants. So that was the Forests Departments niche. So lets have a closer look at where we are at now.

3. Tale of Two Cities

I have dubbed this section the 'Tale of Two Cities' to represent the two desperate planning entities - Regional Planning and Planning Branch Planning.

- i. The statutory imperative - the Act requires formal attention to conservation reserves - for practical reasons this must be constructed in Perth.
- ii. The political imperative - must attend to conservation reserves. Planning Branch does not get enough credit for this.
- iii. A question of scale - it is a comparison between the microscope of the area management plan versus the telescope of the forest planner. Theres an enormous difference between planning for the 18 390 ha of the Walpole Nornalup National Park and the 1.44 million ha of the Southern Forest Region. This is not a value judgement but a statement of scale.

While the regional forest plans and the Park management plan have the same 10 year time span the actual on-ground time frames are quiet different. There is a permanence in Park zonation where as forests have short term and long term planning horizons depending on the type of use.

The combination of huge areas and variable time frames make forest planning difficult. There is no single type or genre of plan which can do all the required tasks.

Whilst the trend is strongly towards integrated operational planning it must be admitted that we still use exclusivity to simplify the choices where its impractical to do otherwise eg. landscape buffers, recreation sites. Zonation of the forest is still unresolved. We do not have a basic planning unit in the forest other than the logging coupe. On a positive note, we are managing to integrate a lot more operational and strategic demands into our plans.

So what can we learn from the Tale of Two Cities? What can we teach each other?

Planning Branch has taught the Region:

- How to get effective public participation.
- How to identify and communicate with your audience.
- Style, layouts, formats, contents of planning documents (have developed better models).
- How to efficiently analyse public submissions.
- How to facilitate/negotiate with conflicting groups.
- Patience - it takes time to produce a good plan.
- Have pioneered special planning applications such as for aboriginal lands.

Region/Operation/Specialist Branches has taught the Planning Branch:

- Practical ways and means of doing things, especially implementation.
- Local knowledge - natural resources and local community.
- Physical support in planning teams.
- Technical expertise in land management.

4. Planning Branch Stub

Regional planners have been swamped by the volume, complexity and diversity of planning work. Pressure is occurring internally (Forest Strategy) and externally (other Government departments).

Planning Branch has a problem with the rate of production of plans, costs of plans and narrowness of planning focus. I think the solution is for much closer integration of the two planning groups. Planning Branch will gain relevance to field operations and Regions will gain expertise and guidance from a group strategically located in Perth.

But perhaps these are just the wishful musings of an old and haggard planner who has sat too long in the sun reflecting on the days when the world was wide and planning was a gentlemen's leisure.

DISCUSSION

- There could possibly be 3 cities instead of 2 cities. Meaning those in between Regional planners and Planning Branch eg. Dryandra has recreation, conservation and production.
- In the planning strategy have they gone too far - tried to please too many people?
- Working towards the goal in increments.

3. FOREST PLANNING (PART ONE)

3.1 Prescriptions for Disease Control - Elaine Davison

The forest is the best place to see fungi. Fungi can quickly get into wood and slowly decompose it. The fungi that rots wood gets in through a wound of some sort, in the wood.

In terms of timber production wood rot is very undesirable. It is possible to control wood diseases through exclusion. This means keeping disease out that can come from overseas and interstate on various products. Exclusion can also be carried out on a local scale by quarantine segregation of operations. This can also involve locating the pathogens in order to exclude them.

The management for tree health can also help to control diseases. Trees have mechanisms to control and stop the spread of disease. Trees can stop the spread of infection by using special cells and resin that is produced in response. This response depends on the health of the tree.

I'm going to use the example of the pines that died in the Blackwood valley in 1988. The cause of death of the pines was unknown and so a hypothesis was used to determine the cause/s.

Stress factors that can cause tree decline and death are:

1. Predisposing factors - long term factors which weaken trees growing in inappropriate locations eg. climate, soil type, genotype, air pollution.
2. Inciting factors - short term factors which further weaken trees eg. drought, flood, frost, insect defoliation.
3. Contributing factors - Long term factors which can only vigorously invade a weakened host. They are often very conspicuous eg. canker fungi, root-rot fungi, bark beetles.

This hypothesis was then applied to the Blackwood valley pines:

1. Predisposing factors - shallow soil, upper slope position, north-east aspect, overstocked stands.
2. Inciting factors - well below average winter rainfall in previous two years.
3. Contributing factors - pine pathogen *Sphaeropsis sapinea*
bark beetle *Ips grandicollis*

This type of analysis helps management. The disease blue stain attacks when the tree is under drought stress. So water availability to the tree has to be controlled and the tree has to be located where it can grow to the best health.

Management of the pine pathogen *Sphaeropsis sapinea* is by managing plant stress:

1. Identification of sites where trees are likely to be drought stressed.
2. Ensure that stands on these sites are not overstocked.
3. Is it economically profitable to plant these sites.

Summary

What are the management priorities?

- Exclusion: National quarantine
Interstate quarantine
Local quarantine
- Managing for plant health:
Is our expectation too high?

3.2 Prescriptions for Weed Control - Alex Moylett

Today I want to help you to get an appreciation how operation people have to deal with weeds.

Under legislation CALM has to deal with weeds. There are 848 naturalised introduced plants in WA. 40 of these cause serious conservation problems on CALM land. There are two types of weeds:

1. Declared weeds - are those that require control under legislation. These can be different weeds, depending on which area you are in.
2. Environmental weeds - are those that have a conservation effect eg. bridle creeper.

The effects of weeds include:

- Structure change in native plant communities.
- They can take over whole areas eg. blackberries, arum lilies, watsonia in John Forrest National Park.
- Alteration of flammability (fire problem).
- Can choke out priority species and regeneration areas (silviculture).
- Change ecosystem processes.
- Effect fauna habitats.

Our own native plants can be weeds eg. regeneration eucalyptus in pine plantations. The main aim is:

1. exclusion
2. control them if they are present

The policy for weeds addresses:

1. Types of control.
2. Hitting declared weeds.
3. Hitting non-declared weeds.
4. Using the best method of control.

Districts make their own weed control strategy. A twice yearly meeting with APB and CALM is also held to review weed control procedures.

We will examine non-chemical methods of control where possible. Approval must be given from the Director of Nature Conservation for biological control. Any type of control must not effect rare flora or native fauna. Chemicals used for weed control must be approved by the Department of Health and by the WA Water Authority if the chemicals are to be used on

water. The Chemical Users Manual is used and if the chemical is not in the manual it must get approved. The Herbicide Manual gives the best method and chemical to use.

The District Register, local knowledge, APB officers and Regional Advisory Committee meetings all help to locate and prioritise weeds and weed control. We must also determine whether the control is cost effective eg. chemical control of blackberries is not cost effective and so we are waiting for the rust fungi to use as a biological control. Operators need to be trained and special equipment is needed. There are a number of problems when controlling weeds:

- Access (must be able to get to the weeds).
- Reluctance of staff to use chemicals.
- Effect of chemicals on non-target species.
- Destabilisation of soil.
- Water catchments.

3.3 Prescriptions for Feral Animal Control - Jack Kinnear

Feral animals are very damaging because they have been added to the system and they change the bio-diversity (they decrease it). To identify a keystone species you must take it out and observe it and the consequences.

The fox was introduced to Victoria in 1865 for recreation purposes. In 1912 the fox reached WA and within 25 years was spread over the whole state. The very large distribution of the fox means it is a tough and adaptable species.

The presence of the fox means a low number of native fauna. There is an increase in native fauna when the fox is taken out by baiting eg. Tutanning Nature Reserve, Boyagin Nature Reserve (Brush-tailed possum). Tammars, Rock wallabies, numbats and possums all respond to fox eradication. When the fox is eradicated there is a niche expansion of the native fauna ie. the native fauna is living in refuge when the fox is around.

The *Gastrolabium* sp. means that we can have 1080 programs that are very target specific. The Chuditch was thought to be off limits to baiting due to being carnivorous. However research has shown that we can now go ahead with baiting as the Chuditch is not affected by the 1080. Both Chuditch and Mallee Fowl respond to fox eradication. Cats cannot be baited as easily as the fox.

A more effective control is being investigated and involves effecting the fertility of feral animals. With this method a virus affects the sperm so that it can't enter the egg. One method is to bait a wide buffer area with antigen bait.

Planners should consider feral animal control for conservation and tourism. An abundance of wildlife can mean an increase in tourist attraction. This tourist attraction can generate money for CALM. We should treat an area for feral animals and then money gained from tourists should be put back into feral animal control for the same area or another area.

DISCUSSION

- Dynamics of feral animal and weed control.
- Secondary impact of fox baiting eg. rare flora, rabbits.
- Burning practices and logging impacts on fauna.
- Using fertility control on fox populations.
- Prescriptions for healthy trees in a management plan.
- Land suitability for different vegetation types.
- Weed control - in regards to policy and weed control on different profiles ie. weed control on hills and low profiles in relation to CALM land boundaries.
- Is CALM developing a policy for conservation weeds?
- Environmental consequences of controlling weeds.
- Effectiveness of management plans in relation to disease, weeds and feral animals.

4. CREATIVE PLANNING - A PRO-ACTIVE RESPONSE TO CULTURAL CHANGE

4.1 Efficiencies in Planning - Ian Herford

I'm going to talk about the preparation of plans, time, money and implementation in terms of efficiencies.

Efficiencies in Plan Preparation

1. Prepare Regional management plans first.
2. Produce Area management plans only where essential (when Regional Plan is not sufficient).
3. Obtain data well in advance - consider the data needs for a plan well in advance of the plan (even 2 years ahead).
4. Minimise background information in the plan.
5. Use Regional management plan strategies in Area management plans.
6. Evaluate community involvement needs (determine and justify the need for a community workshop). For example put an ad in the newspaper to let the public know CALM can provide a workshop if it is desired. Ring this number if you are interested in a workshop.

Efficiencies in Finance

1. Print less Plans. Printing is the most expensive part of planning. We should determine needed numbers, with an option for further prints.
2. Two colour covers are not necessary.
3. No final launch.
4. Send notifications instead of plans.
5. Have small teams and committees.

Efficiencies in Time

1. No immediate approvals of goals and table of contents. Put together draft goals and table of contents before planning stage to get approved by the Executive Director and NPNCA.
2. Have small teams and committees.
3. Time limits for comments.
4. Use hypercard for distribution lists.
5. Standard format for Analysis of Public Submissions.

Efficiencies in Plan Implementation

1. Implementation programs.
2. Annual reviews of implementation of plans.
3. Involve planning officers in implementation.

4.2 Keeping Our Publics Involved - Doing More and Better (With Less) - Allan Padgett

I'm going to talk about efficiencies in terms of involving the public. An efficiency we must look at is the printing of plans. For instance do we need as many draft plans as final plans printed. It is also cheaper to reprint plans, if further copies are needed. This table shows some interstate comparisons of management plan production runs.

STATE	DRAFT		FINAL	
	Nos	Price	Nos	Price
NT	• 50 - 100 • CCNT has a very small free list • Nos do not include copies to all members of Legislative Assembly (approx 100)	\$10	• 50 - 100 • ditto draft	\$10
VIC	500	\$8	600	\$8
NSW	• Nos proportional to size and public interest - small NP 200-250 (incls obligatory free list approx 100) - large NP (up to 1000) - neighbours get a free copy - reserve of 50 - 100	\$0	• "fewer" (half to two-thirds) • cost recovery (incl free list) • have a holding contract eg. 10-12 plans/yr, av pp=35, av run=350 (budget approx \$1000/plan); get 3 quotes on unit cost for total run • reprints equal (or less in costs)	\$7-8
QLD	• 250 - 350 • runs decided on case by case basis • Nos proportional to size and significance, and public interest, eg. smaller parks= 50-100 draft, 20-30 final, c.f. Great Sandy Region WHA, ?300 draft (incls all neighbours)	\$0	• 50 - 100 (up to 250 for "flash plans") • aims for cost recovery (of printing)	\$10 standard \$25 flash
WA	• 500 - 700 (depends on Park) • substantial free list (approx 150)	\$5	• 500 - 700 • substantial free list (approx 150) • analysis of public submissions also printed (same Nos as plan)	\$5 if <100 pp \$10 if >100 pp \$3

We need to treat each plan on a case by case basis, and establish the size of the print run accordingly. We also need to rationalise the number of free plans ie. reduce the free list, and to seek a better return on costs of printing the plans.

What about the Analysis of Public Submissions? How many do we produce and is it necessary to print it for the public? Most people don't use the entire Public Submissions document. There are two other types of Public Submissions documents compared with the current model:

1. Table form with less detail.
2. Short summary written into the back of the final plan (eg. Beeliar Regional Park).

The table form is more condensed and could either be placed at the back of the management plan or as a separate document. The public can contact us if they want more information on a particular submission or section.

An alternative to having a printed booklet for the analysis of public submissions is using hypercard. The public can contact us if they want some further information and then we print off the relevant section and send it to them. We could also sell them a disc with the information on it.

We don't know what form of analysis the public prefer. Some social research needs to be done to determine this, and a more precise and efficient method developed to let our publics know that we listen to and act upon their concerns.

We can be more efficient, get better returns on our efforts, and keep our publics involved - all on a smaller budget than what we have been accustomed to.

4.3 Transferring to a New Management Ethos - Colin Ingram

Ethos is a new way of doing things:

- getting away from depending on CRF allocation to using new financial and other resources.
- focus on improved efficiency and effectiveness in the parks and recreation portfolio.

This is already happening. We have been very efficient but not effective. To achieve this a new focus and direction needs to be made. We have recognised a need for change and are now doing so. A definition of new resources is: people, money, political support, constituency. It is about marketing and orienting CALM (people and policies) and its products (attractions, sites, people, activities, ideas, practices, plants and animals, cultures and heritage) in a way that will:

- attract more people
- provide greater choice
- provide increased public enjoyment
- promote environmental awareness and appreciation
- provide for a stronger/more supportive constituency

How can this be achieved?

1. Increased participation in outdoor recreation:
 - demand for outdoor recreation will double in next 10 years.
 - new ethos is about capturing and nurturing this demand.

2. Focus on people:

- i. Based on choice it involves market research in order to meet expectations and needs. Based on determining visitor preferences and requirements.
- ii. Valued customers - customer service ethic and orientation to the customer.
- iii. Visitor satisfaction - involves value adding eg. greater choice of activities, disabled facilities.
- iv. Business like - application of business management practices to determine the most effective and efficient application of resources.

3. Community involvement:

We need closer co-operation with community groups and organisations (volunteer effort, public participation in planning, joint projects, non-profit organisations). The Government recognises that projects that originate from the community are often more effective in meeting local needs and conditions.

4. Partnerships with:

- tourism industry
- corporate sponsorship
- grant programs
- local government
- non-profit organisations eg. Lions, Rotary Club.

5. Environmental care and education:

By the use of interpretation and education programs based on needs of the public.

6. Concerned and enlightened public:

- encourage input/participation
- encourage volunteer effort
- encourage corporate involvement
- encourage research and education

We need integration of a business approach into all aspects of our operations. We need to set performance targets and evaluate our progress. Good examples are the CALM nursery, Landscape and the Purnululu airstrip.

DISCUSSION

- Possible eco-tourism fox baiting to increase fauna numbers.
- The effect of leaving out colour photos on plans, on public perception.
- The need for community workshops. Having continual communication with the public and attending meetings of groups such as LCDC instead of workshops eg. Shoalwater.
- Development of Regional Plans. The use of Regional plans instead of Area plans.
- Usefulness of public submissions document.

4.4 A Case Study in Integrated Planning: Shark Bay World Heritage Area- Ron Shepherd

Centralised Co-ordination

There are pros and cons for having the Planning Branch in Perth. In a central location there is access to resources and policy makers. However it is easier to achieve local ownership when based in the Regional centre. You are more likely to address the issues when the local community can have more input. It allows the planner to experience the lifestyle.

Communication

Communication is vital both within CALM and with clientele.

Carefully, Carefully

There is a need for time efficiency but we must be patient. We need to bring in new terms, philosophy and ideas slowly into the community. Cutting corners to meet deadlines has set back the planning process and there is greater acceptance if you take it slowly.

World Heritage

One of four criteria must be met before an area becomes World Heritage. Shark Bay meets all four of these criteria. It takes 12 months to get to World Heritage. It also affects the management plan. People come from all over the world to do research and to make comments on Shark Bay. There is a whole suite of land tenures, acts and resource uses. There have been social changes in the local community due to Shark Bay being made World Heritage.

There are a number of planning documents that we can use: Regional plan, Strategic plan, Area management plans, Fisheries management plan (Consultation with the community involves the Management Advisory Committee, Scientific Advisory Council and Marine Park Advisory Committee. Because Shark Bay is World Heritage CALM has input and involvement with local government, State agencies, Commonwealth government, IUCN and the people of the world.

5. TRANSFERRING OWNERSHIP OF THE PLAN (DISCUSSION SESSION)

5.1 A State Perspective - Jim Williamson

It is important that the State has ownership of plans. It is also important that the State has acceptance of the plans. Acceptance means there are fewer complaints but one step further to acceptance is ownership. Ownership is 'motivated acceptance'. Who should own the Plan?

- CALM
- controlling bodies
- government
- stake holders
- community at large

The ultimate efficiency is time but the public need time to accept and own the plan. Planning is also related to funding. If a plan is produced there is more chance of getting funds for implementation.

5.2 A Regional Perspective (Wheatbelt) - Anthony Sutton

Ownership involves targeting the community. In the wheatbelt this involves:

1. CALM staff - which is the first target audience to inform that there are different issues.
This can be done through external workshops.
2. Public in the Region - which is difficult geographically in the Wheatbelt. There are:
1000's of individual neighbours
100 interest groups
40 Shires

5.3 A District Perspective (Shark Bay) - Ron Shepherd

There are two target audiences - CALM staff and the public. District staff should be involved and their knowledge used as this will help create acceptance. The planning team should have one person as a spokesperson to deal with communicating to staff and the public. We need to be giving something to the District so that the public and the District staff will be working with us. Acceptance by the public will mean a decrease in maintenance of recreation sites. Vandalism is generally due to people not accepting what we have done.

6. FOREST PLANNING (PART TWO)

6.1 Prescriptions for Silviculture Management - Jack Bradshaw

The conventional definition of silviculture is the '*art of producing and tending a forest*.' It deals with the creation and maintenance of the kind of forest that will best fulfil the objectives of management.

The definition of silviculture that appeals to me most comes from the philosopher, Goethe.

"Our whole attention must be directed to observing carefully the processes of Nature, so that we do not make her refractory by peremptory orders, but, on the other hand, do not allow ourselves to be diverted by her caprice."

Silviculture is based on the presumption of a forest as a dynamic system that lives, dies and replaces itself. Silviculture involves the manipulation of those natural processes. As the forest goes through the process of changing with age it is manipulated in the direction that most satisfies the management objectives. In this process there are a number of paths that will be followed. What is achievable silviculturally is limited by the characteristics of the forest we are dealing with, its present condition, as well as by social and political values, by markets and by economics. It is the role of silviculture to identify these paths of change and push the stands in the appropriate direction. As I see it this is the role of planning. To identify the objectives of management.

Traditionally silviculture is seen as the means by which forests can be managed for timber production. The forest, however, can also be managed for water production or catchment protection. In the past, silviculture has not been seen to have a particular role for conservation or even recreation. But it is just as applicable.

Forests can be manipulated to suit particular species of wildlife. The question is, do we want to do it? When there is no shortage the answer is usually no. But if we decide yes then we give ourselves the hardest problem. What precisely do we want? In this state we have tried to escape this question by saying that we will 'manage the area to maintain its natural condition.' What is natural?

A few ways this might be considered. We could:

- i. Manage the area as it would have developed in pre Aboriginal times ie. over 40 000 years ago, in a quite different climatic and ecological situation.
- ii. Manage the area as we believe it may have been managed under Aboriginal practices.
- iii. Allow it to develop from its present condition without any interference.
- iv. Manage it deliberately to create variety, to maintain a healthy system with no particular bias of preference for any species or age class.
- v. Manage it deliberately to favour a particular age class or species.

The question of managing to a regime that is presumed to represent Aboriginal or pre Aboriginal practices raises many uncertainties. For example there was a decline of some mammals in desert areas due to the cessation of Aboriginal burning practices and since their migration from the area we have returned to a more 'natural' fire regime which is dictated by lightning occurrence.

Alternatively we could adopt a *laissez faire* approach. In my view this does not represent natural development. Some intervention is often necessary in order to achieve some resemblance of what the forest may have developed into. This is because conditions and vegetation complexes have altered over time eg. tuart forest can now not regenerate itself without interference.

We manage or manipulate natural systems whether we like it or not. For example if it is decided that a reserve will not be deliberately burnt we have made a decision to favour some species at the expense of others; when it does burn it will probably be by an intense fire.

For any forest its existing condition presents a snapshot of the present and that condition will change in time. Age distribution and species composition may change with it. There is no possibility of preserving it in its present condition. If all natural stages are to be represented then these areas need to be deliberately managed to ensure there is variation, not sameness.

There will be circumstances where it may be necessary to deliberately bias the management in order to conserve particular species, age class or aesthetic qualities that may be rare. For example it is likely maintenance of old growth forests in conservation reserves will remain a primary objective.

Resolution of these matters is made difficult because the term 'natural' is heavily influenced by human perception. There is a preference for certain documents of the natural environment. This year there will be a joint meeting with the native forest and the wildlife research working groups with the object of devising more positive silvicultural techniques for wildlife management. It is interesting that the most enthusiastic supporter of this positive manipulation comes from SA where their natural resource is so small they can't afford to fence it in and watch it evolve. Silvicultural manipulation is essential to the long term well being of wildlife in those areas. I think we will eventually come to the same conclusion.

6.2 Prescriptions for Fire Management - Keith Low

Fire management has a degree of tradition in CALM and the Forest Department. We have had mainly positive results in terms of fire management and have gained a great deal of expertise along the way. We have world wide recognition as fire managers.

Under legislation we have a responsibility to fire management. The Bush Fires Act, CALM Act and policy document all give legal responsibility to CALM. A recent addition to legislation is the Wildfire Threat Analysis. This document is used to evaluate the threat of fire and considers all values. It will assist planners with prescriptions and planning.

There are three main points I want to go through.

1. Do we plan for peak performance in knowledge that we won't finish the plan? We should decide what the best plan is and aim towards that. It is important that we don't prescribe a plan that we can't live up to.

2. I expect from a plan a set of prescribed objectives and not a set of strategies. The strategies don't consider changes and new developments and ideas that can occur over the 10 years. We should let the implementor worry about how he or she is going to achieve the objectives. The implementor can develop strategies that will achieve the objectives.
3. I'm going to use Lane Poole Reserve as an example. In this management plan there are too many prescriptions. There are 25 prescriptions in the fire section alone and I believe this could be reduced to about 10. The only prescriptions that are needed are the ones that give direction. The prescriptions about Policy aren't needed as these are done anyway. Although the Policy prescriptions may be needed for the public and the solution may be to append the Policy prescriptions in the Plan. It must be decided which Policy prescriptions are important for the public and those that aren't.

6.3 Prescriptions for Mining and Water Resource Management - Denise Allen

Mining involves the removal of products such as sand, gravel, bauxite and gold. Mining does occur adjacent to conservation areas and water catchments. There are three main categories of prescriptions related to mining:

1. disease management
2. rehabilitation management
3. water quality management

Feeding into these three there is also forest protection, logging specifications, safety and silviculture.

There are a number of policies (legislation) to do with mining and one is the CALM/Alcoa Working Agreements. There is also a separate manual for disease management on a mine site. I'm going to use bauxite mining as an example and go through the steps involved.

- The first thing to consider is the location of disease. This is done by either field survey in strip lines or air photography.
- The location of disease is then mapped.
- After mapping there is a system of access closure for the mining area. This is done by signposting.
- The disease is demarcated in the field.
- As part of disease quarantine washdown and segregation of operations is used during drilling.
- Following drilling is the logging operation. The area is logged for maximum utilisation, using fence posts and firewood.
- The area is then cleared and heaped. The heaps are then burnt.
- The disease lines are demarcated in the field again.
- The topsoil is removed and taken and used in an area that is prepared for rehabilitation (direct topsoil replacement).
- The overburden is removed from the area and stockpiled.
- The area is drilled and blasted
- The debris is loaded onto Hall Packs and taken to the crusher and railed to the refinery.
- Landscaping is done and overburden returned.

- Topsoil from another area is placed on top of the overburden.
- Contours are put in to match the surrounding landscape.
- Area is then ripped.
- The area is direct seeded with overstorey and understorey species and fertilised by helicopter.
- The area is hand planted when direct seeding is unviable.

The objective is to maintain the quality of water in dams adjacent to mining by putting sumps in the pits. Sumps are also placed adjacent to roads to reduce turbidity. Drains are reinforced to ensure turbidity is retained. Fauna habitats are also protected through the use of mining prescriptions by protecting rivers and catchments and by sometimes creating habitats within the pits themselves.

Native species haven't always been used in rehabilitation. In the 1970's the main aim was timber production in terms of rehabilitation. Introduced species can cause problems with fire protection. In the mid 1980's there was a significant change in hygiene management, landscaping and the use of native species. Direct seeding is better than hand planting from a timber production point of view. The large amount of time that it takes for biomass to build up on the ground after rehabilitation is of concern.

6.4 Prescriptions for Landscape Management - Grant Revell

The landscape is hard to manage due to a mix of values. Managing the landscape is based on what looks good and what doesn't and this is dependent on differing values.

Policy 34 sets objectives and strategies for Visual Resource Management. The Objective from the Policy is:

To ensure that all land uses on lands and water managed by CALM are planned and carried out in ways that sustain the beauty of natural environment.

Visual Management Objectives:

- **VISUAL RESOURCE MANAGEMENT ZONE A:**
VRM Priority - High
VRM Objective - Maximum Retention of Visual Quality
 - Avoid forest operations which lead to a major change in scenic quality in the short term.
 - Focus on the maximum protection of all existing visual landscape features.
 - The recommended landscape alteration level would be low, least accommodating to visual change.
- **VISUAL RESOURCE MANAGEMENT ZONE B:**
VRM Priority - Moderate
VRM Objective - Moderate Retention of Visual Quality
 - Landscape alterations may be visually apparent.
 - Focus on the protection of the dominant existing visual landscape features.
 - The recommended alteration level would be moderately accommodating to visual change.

- VISUAL RESOURCE MANAGEMENT ZONE C:
VRM Priority - Moderate
VRM Objective - Partial Retention/Enhancement:
 - Landscape alterations may be visually dominant but should reflect the existing lines, forms, colours and textures of the surrounding landscape.
 - Where possible, seek to optimise and enhance visual quality over the medium to long term.
 - The recommended alteration level would be highly accommodating to visual change.
- SPECIAL VISUAL RESOURCE MANAGEMENT AREA - PRESERVATION:
VRM Priority - High
VRM Objective - Preservation:
 - These preservation areas include those landscapes where visual values are of high aesthetic importance and have equal priority with other critical natural resource values.
 - The recommended alteration level for these areas allows for little more than natural change or very low impact changes which are carefully planned to accommodate and/or enhance the special visual qualities of the special preservation area.
- SPECIAL VISUAL RESOURCE MANAGEMENT AREA - REHABILITATION:
VRM Priority - High/Moderate
VRM Objective - Rehabilitation:
 - Landscape alterations which have resulted from past management practices or natural events and do not satisfy the desired visual quality objective will require rehabilitation. This priority should be retained until the desired standard of visual quality is attained.

There is a broad scale Planning process and this is:

- Defining landscape character types
- Understanding user levels
- Mapping seen area
- Mapping visual quality
- Defining visual management zones and priority areas
- Implementing visual resource management objectives

These diagrams show the steps involved in Visual Management Planning on a broad scale and then on a project level (see Appendix 3 - Visual Landscape Assessment: Broad Scale Planning and Appendix 4 - Visual Management System: Project Application Level).

Visual Resource management involves evaluation and monitoring:

- Monitor management activities.
- Evaluate planning and design criteria against visual quality objectives.
- Undertake landscape perception research.
- Amend visual management planning and design methods.

Managing visual landscape values involves:

- Integration with forest planning processes.
- Minimising visual impacts in the short term.
- Optimising and enhancing scenic qualities in the medium to long terms.
- Maintaining flexibility
 - Respect landscape variety
 - Seen area scenarios
 - Unknowns
- Managing by all VRM objectives.
- Monitoring and evaluating performances.

IT IS NOT:

- Absolute
- A impact free system
- A placebo or tranquilliser

DISCUSSION

- No planned burn.
- Is there a role in large areas for self-sustaining ecosystems?
- What information do we need to make a management decision?
- Educating the public about our dynamic forest.
- More specific objectives in plans.
- Management plans for forest blocks.
- Leaving out background information and unnecessary Policy strategies.
- Role of silviculture in national parks and conservation parks.

6.5 Recreation Planning - Tracy Churchill

Recreation Planning is...

...The physical allocation of recreation resources (physical resources, staff, funds, etc.) in providing leisure needs. Planning provides a systematic basis for determining the type, location, quality, quantity and timing of recreation opportunities. In addition, planning also provides a basis for optimising available resources and minimising conflicts.

There are a number of policies and standards in regards to recreation planning. These include:

1. Policy No. 18 "Recreation, Tourism and Visitor Services".
2. Sign Manual which is non negotiable.
3. Field Guide booklets with construction standards.
4. Portfolio guidelines - plans for facilities.
5. Information Exchange file if the newest initiative for Recreation Officers.
6. Outdoor Access For All.
7. Tasmanian Walktrack Manual.

There must be a consistency of standards and terms used in recreation planning. In the recreation and landscape branch we have Gil and Lotte in interpretation, Richard in Recreation and Steve in Planning and Design.

The primary objectives are:

MANAGEMENT

To protect, restore and enhance the value of resources entrusted to the Department so as to meet, as far as possible, the diverse expectations of the community.

CONSERVATION

To conserve the indigenous plant and animal species and environmental processes in natural habitats throughout the State.

PRODUCTION

To provide and regulate the supply of renewable resources on a sustained yield basis for the satisfaction of long term social and economic needs, and in a manner that minimises impact on other values.

RECREATION

To facilitate the public enjoyment of the natural attributes of public lands and reserved waters in a manner that does not compromise conservation and other management objectives.

The aim of the Regional Recreation Framework Plan is to define the ideal mix of recreational opportunities (areas, facilities, programs) throughout the Region in 50 years time. We need to define those areas/attractions that need protection from overuse and inappropriate development. The program that has been developed outlines work proposed for the next 15 years and the work programs for the next 5 years are reviewed annually. The process that is used is the standard design process and includes: brief, resource, visitors, implementation, responsibilities, maintenance and monitoring and review.

Currently a biannual gathering of district recreation officers occurs to discuss relevant issues, recreation design and construction. A selected Regions work is also reviewed. The sessions were very positive and a great information exchange.

Recreation data is a new system that has been introduced to most of you. It is a computerised database that records all our recreation resources in terms of sites and facilities. Details such as site conditions, planning information, visitor use information, facilities and management information can be recorded.

Planning is a multi-disciplinary event or process involving all issues in combination. Nothing can be dealt with in isolation as there are interrelationships with dieback, access, recreation activities, vegetation and landscapes. Recreation must be integrated from the beginning as all disciplines should be. More direct relationships will be with interpretation and landscape management.

Requests to Wayne or Richard, The ideal process:

1. An initial introduction meeting with all major players. Pre planning briefing outlining the process, materials required, job scheduling.
2. Assessment undertaken with relevant co-planners ie. recreation, interpretation, landscape, planner, district/ranger.
3. Advice and concepts given based on assessment for first draft. Site plans prepared where necessary.
4. First draft reviewed and comments given.

Points to note:

- Recreation and Landscape Branch should be involved and given prior warning.
- Recreation planning needs to be done wholistically and in conjunction with other major groups.
- Helpful if major 'given' constraints are determined early in the process.
- Base materials are essential - aerial photos, contour base.
- User surveys and questionnaire - visitor information is essential and it is best to start early (prior the plan).
- Determine whether recreation planner needs to be on the team eg. West Cape Hose - Richard Hammond.
- Planning team needs to suspend existing bias and pre-existing constraints (ie. finances, existing development).
- Public should have the right to review site designs ie. Shelley Beach etc in West Cape Howe.
- Its not fair to be vague at key spots. Need recommendations that given direction.
- Public workshops - recreation planner should be involved when recreation is a key issue of a Park.
- Dealing with local staff that have strong bias and barriers can restrict the process of investigations for recreation opportunities.

Implementation:

- Recreation and Landscape Branch should have continual involvement with the plan.
- Management plan should give directions for detailed site design - not give specifics that will restrict the ability to undertake detailed site assessment and to work within the site.
- Specifics can also restrict changes that can occur according to political, social, natural or visitor conditions eg. Fitzgerald River National Park where a specific number of camping groups were allocated.
- Cape Range National Park has no substance for direction or for the public to understand our intentions due to vagueness.

DISCUSSION

- Balance between recreation and conservation.

LIST OF PARTICIPANTS

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GOLDFIELDS REGION CONTRIBUTION TO WORKSHOP

Goldfields Region Draft Management Plan - The Lessons Learnt

- Andy Chapman (unable to attend the workshop).

Now that the release of the draft is behind us, it is appropriate to reflect on what we did right and where our approach to planning could improve:

Where we went right. Very early in the process, long before I put pen to paper, Ian Kealley and I sat down and considered our region on a Shire by Shire basis largely based on Ian's considerable experience and identified issues, drew up a table, matrixed each issue against each Shire. In our initial consultation with Shires this approach indicated we were on the right track and now the draft has been released I am glad we did. I believe local issues have been identified and addressed, even if not everyone agrees with our strategies for dealing with them.

I recommend that remote Draft Management Plan Submissions are open for 4 months not the required two.

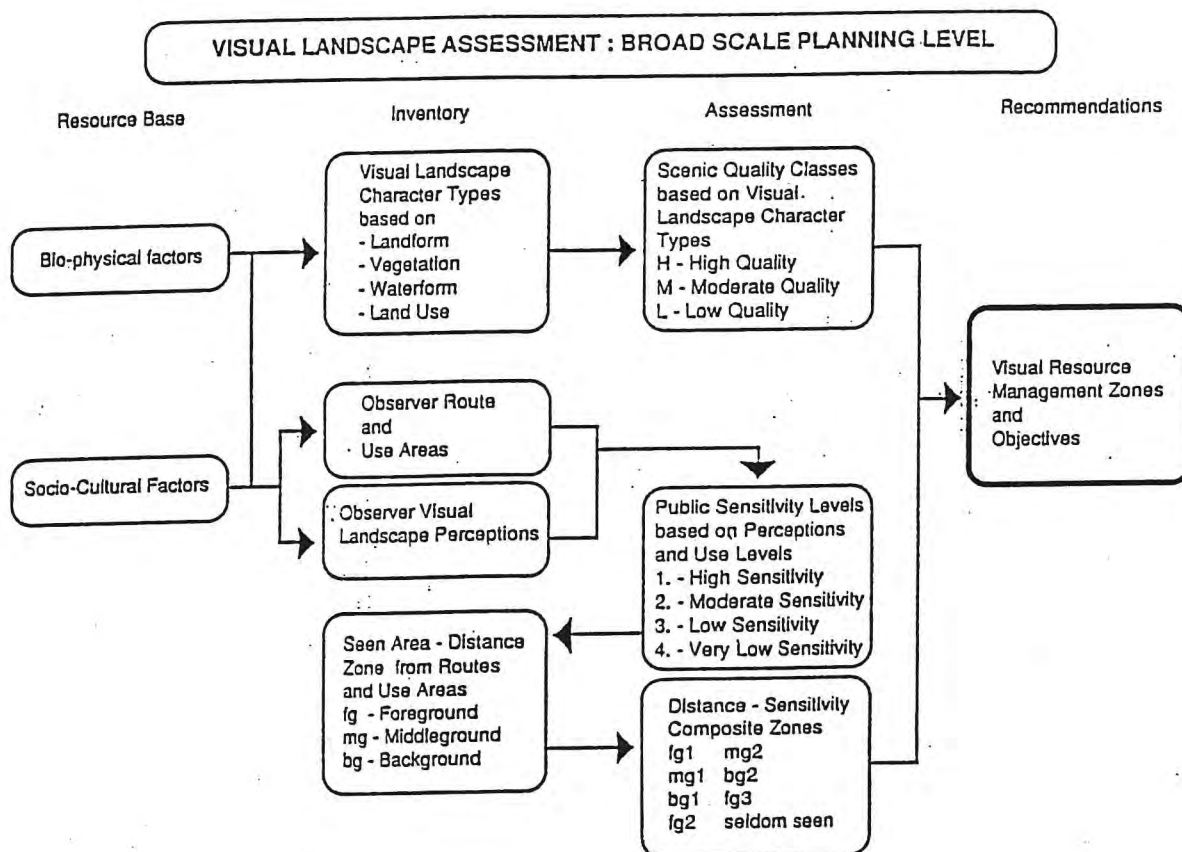
I believe the map products have served us well, in particular by showing cadastral boundaries; as so far, except for one prospector, no one has complained about not being able to identify areas. For this Allan Clarke, Rod Properjohn and John Forster can take a bow.

Where we could improve. I commenced writing in June 1990 and the plan was released in August 1992 - 27 months! It is far too long; initial consultation will either be forgotten or be irrelevant to a greater or lesser extent. Additionally circumstances change with time anyway and it is a lot of work to amend maps and text and it increases considerably the possibility of errors. As it is, several issues in GRDMP were out of date when it was released. The only solution is to fast track approval within CALM.

A word of advice.... Don't assume that of the many people in CALM who are sent a copy prior to release, all will read it. Apart from the planning team I believe only two people read our draft with any thoroughness. I recommend the plan co-ordinator approach a close colleague not involved with the plan with 2-3 days to spare to read the plan for consistency, logic and lack of ambiguity. The plan co-ordinator himself or herself **must** accept responsibility for simple things like:

- that all co-ordinates are correct.
- that all references to maps and figures are correct.
- references are complete with correct dates.
- cross references to sections are correct.

VISUAL LANDSCAPE ASSESSMENT: BROAD SCALE PLANNING LEVEL



VISUAL MANAGEMENT SYSTEM: PROJECT APPLICATION LEVEL

