6. SPECIAL ASPECTS OF THE ENVIRONMENTAL MANAGEMENT PLAN

6.01 Why another management plan ?

An environmental management plan has been prepared for both the public land and the total catchment, taking into account (as much as possible) the various needs identified in the previous sections. The recommended actions for the management plan are described in some detail in Sections 7 and 8 in terms of their specific objectives. Section 9 is a summary and re-arrangement of the actions in a management programme. The present section deals with some aspects of the plan and programme that need further examination and explanation.

A Blue Mountains Environmental Management Plan, Stage 1 was issued in 1989 and some of this has been put into effect by L.E.P. 1991 (see BMCC1989; 1991b). Measures for protecting the environment and promoting community welfare were specified in a management plan for Frank Walford Park in 1982 (BMCC, 1982; L.E.P. 39) and in a management plan for Katoomba Falls Reserve in 1990 (Manidis Roberts,1990). The need for the present study and yet another management plan may be justified by the following:

a) L.E.P. 4 and L.E.P. 39 require revision and possible amendment.

b) L.E.P. 1991 applies only to the residential parts of the study area and seems inadequate to provide the required protection of flows over Katoomba Falls and other special needs of Katoomba Falls Creek Valley.

c) The management plan for Frank Walford Park was prepared 10 years ago when different community attitudes and a different economic climate prevailed; also, that plan has reduced the previous rate of environmental degradation but has not succeeded in repairing the earlier damage.

d) The continued use of Catalina Circuit for motor racing has been a source of controversy for many years, and there is a need to review this in the light of present community attitudes and requirements.

e) The management plan for Katoomba Falls Reserve covers only the southern section of the public land; McRaes Paddock is not included in either of the previous management plans.

f) Protection of the flows over Katoomba Falls requires consideration of the entire catchment area in some detail and this has not been done in any of the previous studies.

6.02 The future of the study area

No one can reliably predict the future but the consideration of likely future circumstances is basic to planning. Accordingly, it is necessary to consider the likely changes in the study area during the next few decades, and the corresponding environmental implications.

It is inevitable that further residential development and some commercial redevelopment will take place in the catchment area of Katoomba Falls Creek as explained in 4.03. As also explained previously, these changes will tend to reduce dry weather flows over the Falls and increase water pollution. Both effects may be minimised by development controls and other measures, but cannot be eliminated completely.

Unless appropriate actions are taken, continuing degradation of the swamps in the study area may be expected. This would also tend to reduce dry weather flows and increase water pollution (see 2.04 and 2.05). Again unless appropriate actions are taken, the spread of weeds and soil erosion will continue. Therefore, a major function of the required management plan is to specify the necessary actions to stop or reduce these undesirable changes.

Despite the present BMCC policies for restricting development and protecting the environment, pressures for commercial development of the public land are likely to continue. As in the past, the advocates of these proposals will gain the support of influential people (and possibly BMCC) with claims that the community benefits of their proposals will outweigh any environmental detriments. When examined in detail such claims can rarely be proved or disproved and whether the benefit of the doubt is assigned to the developer or to the environment would depend on the local political climate at the time. The probability of environmentally harmful development on the public land sometime in the future is therefore quite high unless steps are taken to make such development more difficult.

It should be recognised that a decision to develop an environmentally sensitive area of land is usually quite irreversible after it is implemented. On the other hand, a decision *not* to develop is usually reversible. In the latter case, the potential for development is still there and could have a better chance of fulfilment sometime in the future. Because of these circumstances there is justification for a bias *against* development in such conflict situations. Accordingly the developer should have the onus of proving that the advantages of his scheme to the community outweigh the detriments and, as a general principle, he should not be assigned the benefit of the doubt. This principle may need to be incorporated in policies and practical measures to ensure the protection of the publicly owned land in Katoomba Falls Creek Valley.

As reported in section 5, the continued public accessibility of the "green corridor" and the retaining of this land in a relatively natural condition are clear aspirations of the majority of local residents. These are compatible with other community aspirations and with most of the desirable environmental objectives suggested in earlier analyses.

Ultimately and ideally, Katoomba Falls Creek Valley could be envisaged as a multi-purpose area of bushland with moderate to low-intensity usage. Within this bushland, well planned passive recreational facilities for local residents could be conveniently combined with a memorable natural gateway for World Heritage National Park visitors. Such an area should feature:

- a traffic-free Catalina Circuit modified for a range of recreational activities,
- good walking trails to scenic and wilderness attractions of the World Heritage area,
- local Aboriginal and European historical items with informative plaques and signage,
- special facilities to assist birdwatching,
- a stimulating ecotourist/environment information centre with visitors' amenities,
- a creatively designed entrance near the transport terminal.

All the recommended actions in the proposed management plan are consistent with the above scenario. It is recognised, however, that some of these actions and planning objectives may need to be modified or abandoned in the clearer light of future circumstances.

6.03 The future of motor sports on Catalina Circuit

The particularly difficult problems associated with Catalina Circuit were mentionedin 3.02, 3.06, 5.01 and 5.03. In the questionnaire responses and informal interviews, some residents appeared to regard the noise and other effects of motor sports as the major environmental problem of the public land and they probably expected much of the study to focus on this issue. However, the issue was not even mentioned in the detailed brief for the study, and there was no

stated intention to examine it thoroughly in the consultants' original proposal. Furthermore, there were only two motor sports meetings held in the three month study period and it would have been impossible to obtain sufficient noise measurements to assess the impact satisfactorily during that period.

As outlined in 15.07, a limited number of noise observations were made during one of the meetings in the study period. These suggested that some residents would experience excessive levels for short periods about one day per month (the average frequency of meetings). More accurate observations and measurements for at least five events would be needed to provide acceptable evidence of a serious impact.

Some residents believe that noise from motor sports would be very detrimental to birds breeding and nesting. This may well be correct but seems contradicted by the observed high diversity of bird species (as described previously). Other residents blame motor sports for oil spills in the swamp and for the old tyres littering Frank Walford Park but these suggestions could not be confirmed. As explained in 2.05, the apparent oil spills are probably from decomposing vegetation and the tyres have evidently come from commercial premises on the boundary of the park.

Although the Friends of Katoomba Falls Creek Valley were consistently opposed to motor sports, the questionnaire responses in 5.01 suggested that other local residents could be evenly divided on the issue. This is uncertain, however, as residents were not asked directly about their views on motor sports and the numbers in Table 9 are inferred from responses to more general questions. About 20 percent of residents apparently attend motor sports meetings, and several suggested the Circuit should be upgraded and "returned to its former glory". There were also eight detailed submissions from motor sports clubs expressing strong support for continuation of the meetings. These submissions made the following points:

a) Catalina is the only circuit that smaller car clubs in the Sydney area can afford to hire; closure would be very detrimental to these clubs and to motor sports in general.

b) The demand for circuits of this type is increasing and likely to intensify soon with the scheduled closure of Oran Park within the next two years and the possible closure of Amaroo Park within the next decade. Catalina is highly regarded as an interesting and challenging course for top drivers.

c) Motor sports at Catalina bring some business to Katoomba and fulfill a need for weekend spectator sports which are lacking in the Blue Mountains.

d) Motor club sports meetings are generally quite wholesome family activities; meetings are always alcohol-free and people attending them are usually very well behaved.

e) More frequent use of Catalina for motor sports would deter vandalism as such meetings would result in larger numbers of people being in the area at weekends.

f) Unlike a decade ago, mufflers on sports cars are now very efficient and noise is strictly regulated by the Confederation of Australian Motor Sports (CAMS).

g) CAMS has indicated it is prepared to assist in the solution of any environmental problems due to motor sports at Catalina.

One of the respondents pointed out that vintage car rallies and meetings involving older vehicles were not incompatible with the "olde worlde" style of Katoomba. He also suggested it might be

possible to make a special tourist feature of this kind of meeting, particularly if old fashioned lamp posts or similar ornamentation could be provided in the Circuit area. Other respondents mentioned the legendary significance of Catalina for Australian motor sports, many older followers thinking of it with much sentiment and nostalgia. To give more expression to this feeling, moves have been made to form a "Friends of Historic Catalina" club (see 18.07).

Some local residents dispute a number of the above arguments, for example they say that CAMS may have the potential to regulate noise but does not do this very effectively. The residents suggest that other spectator sports with wider appeal to the local community could be held on the Circuit, and they do not accept that motor sports deter vandalism or help Katoomba business significantly. They are worried by the projected closures of Oran Park and Amaroo, fearing that motor sports interests will try to shift the current environmental problems of these circuits to Catalina. Residents also point out that satisfactory security arrangements cannot be made at Catalina to keep local children off the tarmac during meetings, and the probability of serious accidents is therefore high.

Nevertheless, it is not possible to objectively weigh the pros and cons of motor sports in this case without a set of properly conducted noise measurements. Such measurements would need to be made at particularly sensitive locations for a number of meetings.

It is therefore recommended that the present arrangements for motor sports at Catalina should continue but should be reviewed when a satisfactory sample of independent measurements of noise levels is available. It is also suggested that BMCC should thoroughly check their position with regard to their liability for motor accidents at the Circuit. These items are included in the recommended actions for the management plan presented in Section 7.

6.04 The adequacy of present zoning and development controls

It was noted in 4.03 that there is some doubt about the adequacy of the present zoning of the study area to achieve the required environmental objectives. Development in the public land is controlled by L.E.P.s 4, and 39, both of which predate the current environmental awareness of BMCC and are now in need of amendment. Outside the public land, the catchment area is controlled by L.E. P. 4 and the very recent L.E.P. 1991. Although the latter gives special attention to meeting current environmental objectives of BMCC, it is still not completely satisfactory for protecting swamps. For example, the largest area of swamp on privately owned land in the catchment is zoned Residential Bushland Conservation (RES-BC) which may be used (with BMCC consent) for a number of environmentally detrimental purposes such as agriculture, keeping of hoofed animals and house building.

Other deficiencies in the present zoning and development controls are:

a) There is inadequate recognition of the high intrinsic erodibility of the soil and the consequent need to have more stringent restrictions for development on sloping land than are needed elsewhere. For example, 33% is now the general maximum slope on which development in the catchment is permitted but this is the same as in other parts of the State where soils are less erodible. A lower maximum slope should be adopted for development on all Narrabeen Sandstone soils of the Upper Blue Mountains.

b) Under L.E.P. 1991, all land steeper than 33% is deemed to be Protected Area-Environmental Constraint and most of this land is distinctively marked on the L.E.P. map. However, some areas with slopes exceeding 33% occur in the Katoomba Falls

Creek catchment and are not marked on the map (see Figure 3). Although it may not be essential for the enforcement of the control, marking such areas on the map is very desirable to avoid possible mistakes and misunderstanding (e.g. by land owners, developers and BMCC staff).

Amendment of the L.E.P.s and rezoning are needed to overcome the above problems and recommendations for this purpose are made in 8.02.

6.05 The total catchment management concept

Solutions to various environmental problems through total catchment management (TCM) have been pursued successfully for many years in other countries (see, for example, Dunne and Leopold, 1978). Australian government agencies have been slow to recognise the significance of TCM, and it is only in recent years that the concept has been promoted by the NSW Soil Conservation Service and other agencies. In this regard it has been applied mainly to catchments in rural areas to assist in resolving the closely interrelated problems of soil erosion, agricultural practices, waste disposal and water pollution.

The essential idea of TCM in the context of the present study is aptly expressed by J. Smith:

> "If you want to preserve a waterfall, you have to preserve the place where the water comes from." (Smith, 1986, p.141)

In the same work, Smith refers to the gradual drying up of both Wentworth Falls and the once magnificent Gordon Falls through urban development and the destruction of swamps in their catchment areas. The rainfall-streamflow analyses outlined in 2.04 provide quantitative support for these qualitative observations and anecdotal evidence.

As in the above cases, the water at Katoomba Falls comes from all parts of the catchment area, including the streets of Katoomba, the golf course, and the roofs and gardens of about five hundred homes. Activities in all these places can affect the quality and tourist value of Katoomba Falls. The management of such activities so that the values of the Falls are not lost is an ideal and practical example of the TCM concept. It is also a major objective of the recommended actions in sections 7 to 9.

A TCM programme has been initiated by the Water Board for the Blue Mountains area. The present study has had contacts with this through Mr D. Rhodes of the Water Board, resulting in helpful information and advice from various officers of the Board (see Acknowledgements at commencement of report). It should be kept in mind that runoff from Katoomba Falls Creek becomes drinking water for Sydney and the Board has the prime responsibility to safeguard this supply. Although the Blue Mountains TCM programme is concerned with all the catchments of the Blue Mountains, it is suggested that the environmental management of the Katoomba Falls catchment would provide an excellent case study or model to exemplify the practical value of the programme.

6.06 Aims and principles of the management plan

The aims or general objectives of the proposed management plan were specified in the brief and are described in 1.01. Specific objectives are listed in 7.01 and 8.01 immediately preceeding the associated recommended actions. The specific objectives place some emphasis on much needed rehabilitation measures for the area but are otherwise consistent with the objectives of L.E.P. 1991 and with the Blue Mountains Environmental Management Plan, Stage 1 (see BMCC, 1991b; 1989). In the formulation of the proposed plan the following four principles have been adopted:

1. Within the necessary environmental constraints, Frank Walford Park, McRaes Paddock and Katoomba Park Extension should be managed especially to serve the recreational needs of local residents and backpackers/ecotourists; these two sets of needs are compatible with each other and also with the existing features of the public land.

2. Within the necessary environmental constraints, Katoomba Park should be managed primarily, but not exclusively, for general tourists; in this regard the present study agrees with most of the recommendations of Manidis Roberts (1990) which should continue to be implemented.

3. Special attention should be given to economically feasible measures for restoring environmental quality and to direct, short-term measures for preventing further environmental deterioration. In accordance with the prevailing views of residents, a desirable environmental quality implies a predominance of native vegetation in its natural ecosystems and the absence of weeds, rubbish, polluted water and soil erosion.

4. In the management of the catchment to protect flows over Katoomba Falls, emphasis should be placed on maintaining the swamps and on controlling development to minimise the area of impervious surfaces within the catchment.

Principle 1 is justified by the importance of the public land to local residents and their fears that it could be alienated from the community in the future, and also by the compatibility of residents' needs with those of backpackers/ecotourists. Principle 2 is based on the recognition of the significance of the tourist industry to the wider Blue Mountains community. Principle 3 seems necessary to avoid the failures of the 1982 Frank Walford Park Management Plan and L.E.P. 39 to improve environmental quality. Principle 4 is well justified by the findings of 2.04 and 2.05.

6.07 Costing, priorities and timing of the recommended actions

The brief for this study required some attention to be given to the costing, priorities and timing of the recommended actions. As mentioned in 1.03 it has not been possible to carry out the investigations needed to make detailed and accurate calculations of the costs of all recommendations. Nevertheless, cost estimates are provided for most of the actions in the management programme as set out in Section 9. In many cases the estimate represents the approximate amount of money that should to be allocated to the action, and could also be regarded as a constraint on the planning and scale of operations. Some of the costs are based on information from:

Pages 12 to 14 of Hicks and Lynch (1989) (cost of restoring areas of soil erosion)
Notes on the costs of bush regeneration from Padstow College of TAFE (see 13.02)
Chapter 9 of Buchanan (1989) (other information on costs of bush regeneration)
Institution of Engineers, Australia (costing guidelines for consultants)
Current property prices provided by Katoomba Real Estate Agents
Mr G.W. Bell, consultant building estimator.

Some of the considerations in assessing priorities have been discussed in 5.05 with particular reference to the perceived priorities of the community. Close links are often made between priorities and desirable timing, whereby the highest priority is given to items that should be done in the immediate future and low priority to items that may be postponed for some time. However, such an approach emphasises short term needs and tends to neglect long term needs,

and can be very unfavourable for environmental protection. Separate assessments of priorities and timing are therefore made for the recommended actions in the management programme. The priority assessment is expressed by numbers 1 to 3 based on the significance of the action for achieving the specific objective(s) as follows:

1 Relatively high priority; if this is not carried out one of the specific objectives will probably not be achieved, or several of the objectives will be compromised.

2 Moderate priority; if this is not carried out the specific objective(s) may be partially achieved but the results will be unsatisfactory to many people.

3 Relatively low priority; if this is not carried out the objective(s) may still be achieved but the results will be unsatisfactory to some people.

The timing assessment gives consideration to the likely consequences of delaying the action. If delaying is likely to result in further deterioration or makes later restoration much more difficult, or has other serious consequences then the action should be taken relatively early. The assessment is expressed by A, B or C as follows:

A Action should be carried out or commenced as soon as practicable; delaying could be detrimental to achieving the objectives.

B Action may be regarded as medium term and could be delayed two or three years with little detriment; alternatively, action may not be possible for two or three years because of its dependence on other works.

C Action may be regarded as longer term and could be delayed for some time with little detriment (although it will eventually need to be done to achieve the objective satisfactorily).

Although priority and timing assessments by any scheme are subjective, the above permits the application of professional judgment in a reasonably rational and systematic manner.