

7. ACTIONS FOR RESTORATION AND MANAGEMENT OF THE PUBLIC LAND

7.01 Specific objectives

The broad aims and principles of the management plan have been outlined in 6.06. These are expressed in the following specific objectives for managing the public land:

- to maintain dry weather flows over Katoomba Falls
- to minimise water pollution in Katoomba Falls Creek
- to minimise future soil erosion and, where feasible, repair past erosion damage
- to protect and restore native fauna and flora
- to protect Aboriginal cultural heritage
- to protect European cultural heritage
- to enhance and maintain visual qualities in the public land
- to promote recreational and tourist values in the public land
- to promote other aspects of social wellbeing for residents and the wider community.

To satisfactorily achieve the above it will be necessary to carry out a considerable amount of environmental restoration and rehabilitation in the public land and this work is emphasised in the earlier stages of the management plan. Each of the recommended actions, as detailed below, has been allocated a number. If the action refers to a specific location in the study area the same number is used to identify the location in Figure 11 and/or Figure 12. At the end of each action the suggested priority and timing is given in parentheses in accordance with the scheme described in 6.07. Thus, the symbol (2A), for example, indicates that the corresponding action has priority 2 and should be carried out at an early stage (A), as specified in 6.07.

7.02 To maintain dry weather flows over Katoomba Falls

As shown in 2.04, to achieve this objective it is necessary to:

- a) maintain the storage capacities and natural vegetation of existing swamps and, if possible, restore some of the lost storage capacity of degraded swamps in the public land,
- b) minimise the area of impervious surfaces by limiting new development in the public land and by preventing additional soil erosion.

In the past there have been substantial swamp areas in Katoomba Park where the ovals are now located, and along the eastern side of Katoomba Falls Creek Valley in McRaes Paddock. The latter swamp area is now a degraded seepage zone with much of its original vegetation and storage capacity lost. Flows over Katoomba Falls would have been reduced by these losses in the past and the actions below are recommended to minimise, or compensate for further reductions in the future.

- 1 Rezone to Recreation-Environmental Protection (REC-EP)(as defined in L.E.P. 1991), McRaes Paddock, Katoomba Park Extension and the sections of Katoomba Park and Frank Walford Park marked REC-EP in Figures 11 and 12. This is to ensure that the existing swamps on the public land are retained and that their role in maintaining dry weather flows is not reduced. REC-EP zoning should also protect existing bushland and allow regeneration where needed. Note that the tarmac strip of Catalina Circuit is excluded from this zone to enable a wider range of uses of the Circuit (2A).

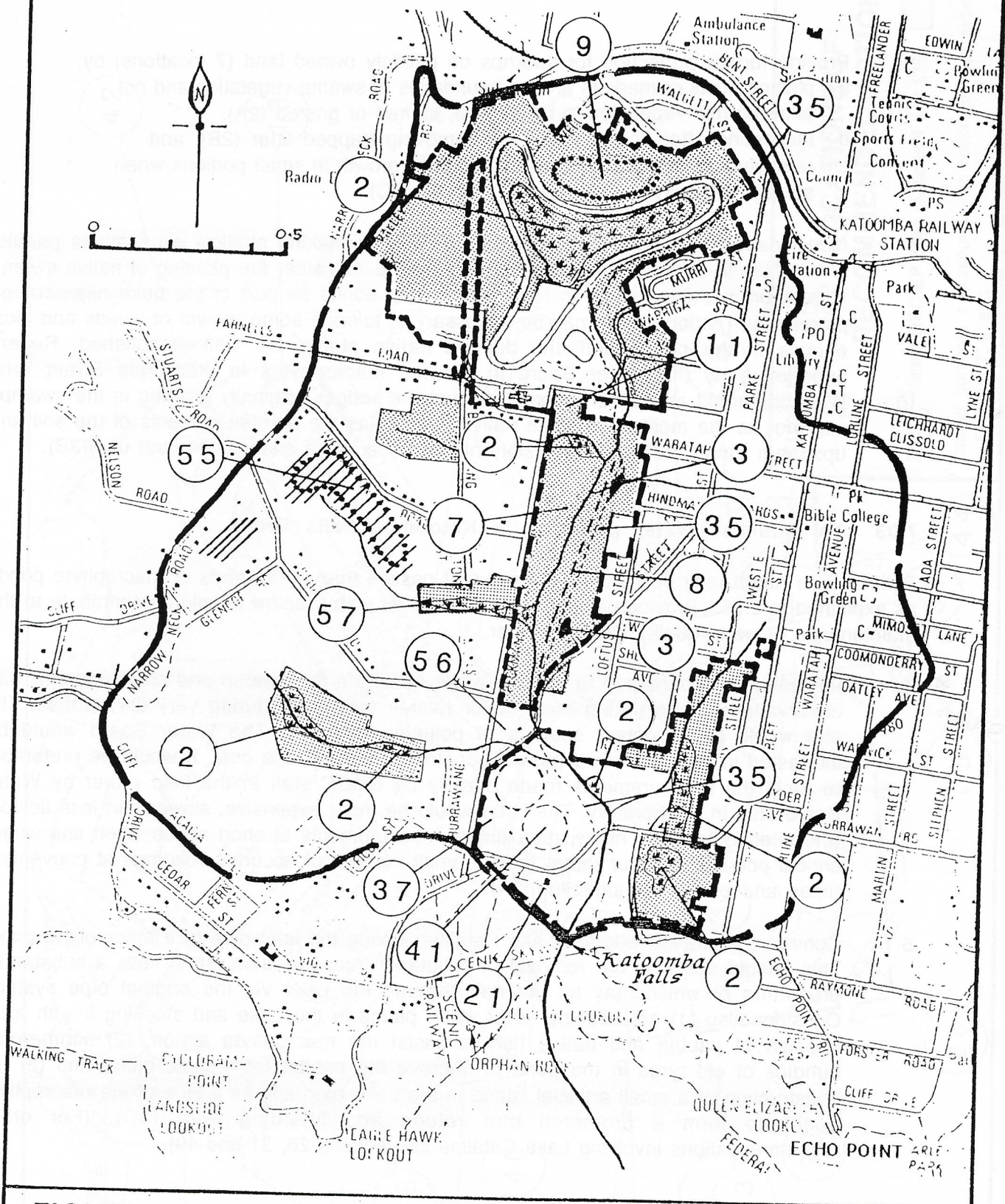


FIGURE 11 **LOCATIONS OF RECOMMENDED ACTIONS**

Recommended Recreation - Environmental Protection (REC-EP) Zone (Actions 1 and 53a)

Recommended Environmental Constraint Area (Action 53f)

Circled numbers correspond with recommended actions in Sections 7, 8 and 9

- 2 Provide further protection for swamps on publicly owned land (7 locations) by:
 - a) placing posts or markers around boundaries of swamp vegetation and not allowing this vegetation to be mowed, burned or grazed (2A),
 - b) inspecting after flood rainfall and removing trapped litter (2B), and
 - c) removing sediment and dense macrophyte growth in small portions when storage capacity is significantly reduced (2C).
- 3 (two locations) Construct wet retention basins by making shallow excavations parallel to contours in existing areas of degraded swamp. Consider the planting of native swamp vegetation in these basins to form macrophyte ponds as part of the bush regeneration programme (Action 10). It may be necessary to tolerate some growth of weeds and local exotics in the ponds until the desired native plants are well established. Recent experience by the Water Board in growing macrophytes in their Vale Street Trial Wetland should assist the action (note that the sedges originally growing in the swamps may not be the most appropriate native species as the nutrient contents of the soil and upstream runoff are now irreversibly higher because of changes in land use)(3B).

7.03 To minimise water pollution in Katoomba Falls Creek

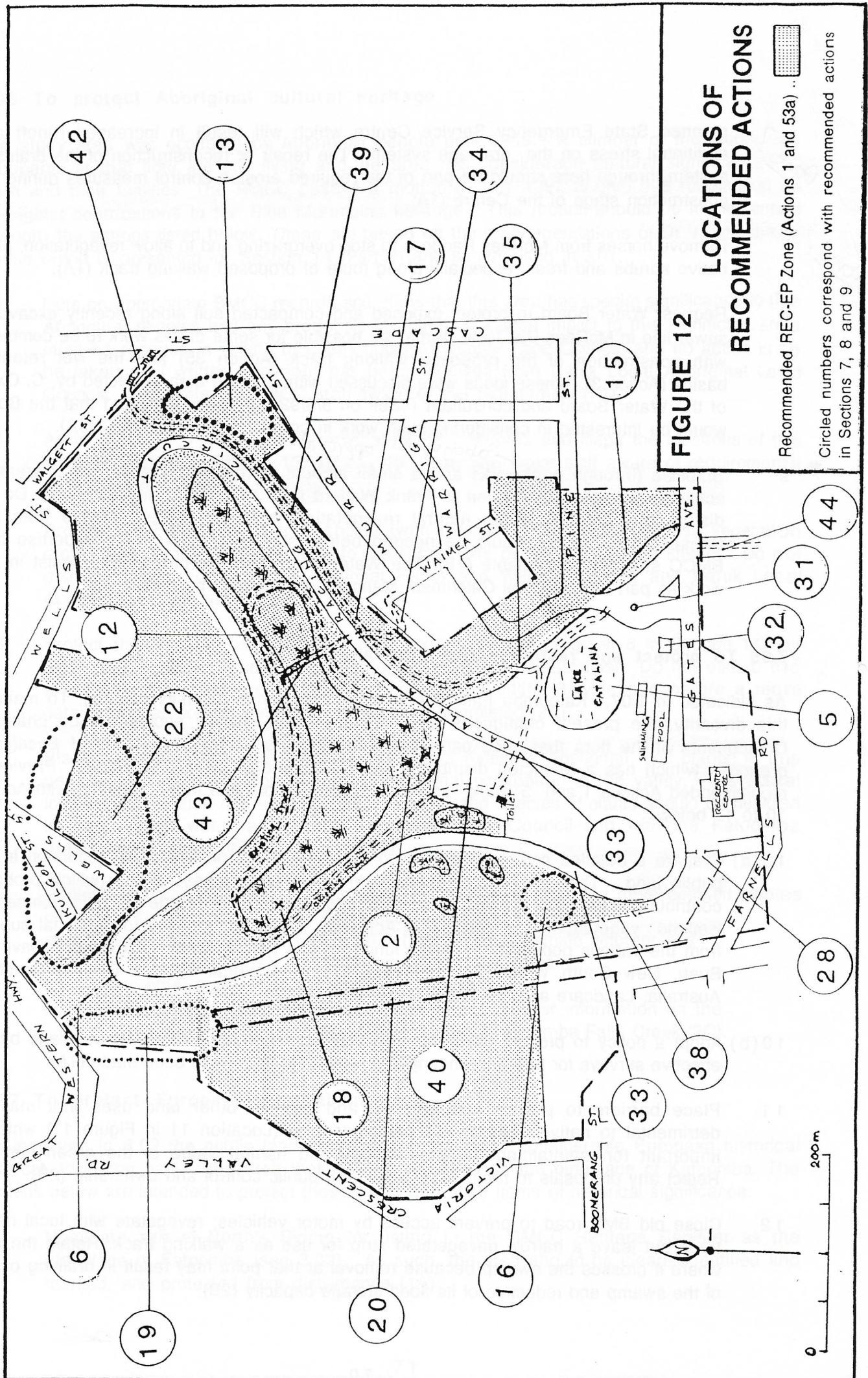
Pollutants in runoff may be reduced if the runoff passes through swamps or macrophyte ponds as explained in 2.05. Previous actions 1 to 3 together with 5 below should all contribute to the maintenance of water quality in this manner.

- 4 Implement a programme to monitor water quality in the swamp and creek system, with observations made during each major rainfall event and during very dry periods. The aim would be to detect sources of pollution promptly. The Water Board would be interested in this and could possibly contribute towards the cost. It would be preferable to have the measurements made directly by BMCC staff in the field rather by Water Board staff in a laboratory. The latter would be more expensive, slower and less flexible (the need is to make many approximate measurements at short notice when and where critical conditions occur rather than a small number of accurate readings at convenient times and places for sampling)(2A).
- 5 Convert the shallow edge of Lake Catalina around the inlet pipe to a macrophyte pond. This should assist in the removal of pollutants from the main creek flow, a substantial proportion of which may be diverted through the Lake via the original pipe system. Consider also (1) establishing other water plants in the Lake and stocking it with local species of yabbie and native fish to assist the macrophyte action, (2) submerging bundles of old tyres in the pond to improve the habitat for aquatic biota, and (3) the construction of a small artificial island in the Lake (perhaps as a side of the macrophyte pond) to form a protected bird refuge and breeding area (3C). (For other recommendations involving Lake Catalina see Actions 26, 31 and 49)

7.04 To minimise future soil erosion and repair past erosion damage

Severe erosion has occurred in the area in the past and further erosion in the future cannot be completely eliminated. This has detrimental effects, including the tendency to reduce dry weather flows over the Falls (see 2.03). The actions below should minimise such effects.

- 6 Carry out urgent maintenance of the drainage system at Location 6 in Figure 12 to prevent further bank collapse and severe erosion. This is immediately downslope of the



planned State Emergency Service Centre which will result in increased runoff and additional stress on the drainage system. The repair or reconstruction of the drainage system through here should be part of the required erosion control measures during the construction stage of the Centre (1A).

- 7 Remove horses from McRaes Paddock to stop overgrazing and to allow revegetation; plant native shrubs and trees, especially along route of proposed walking track (1A).
- 8 Request Water Board to protect exposed and compacted soil along recently excavated sewer line in McRaes Paddock. It may be possible for some of this work to be combined with construction of the proposed walking track (Action 35) and the wet retention basins (Action 3). These ideas were discussed with, and the area inspected by, C. Oxley of the Water Board and consultant F.Bell on 9/9/92. Mr Oxley indicated that the Board would be interested in considering such work in co-operation with BMCC (1A).
- 9 Stabilise (through earthworks and a small amount of revegetation) the worst areas of active erosion in this section of Frank Walford Park (Location 9 in Figure 11). Do not disturb any patches where natural revegetation is taking place. Advice from Soil Conservation Service would be needed before starting if appropriate expertise from BMCC staff is not available (1B). The Water Board may be prepared to assist in this work as part of their Total Catchment Management Programme (See 6.05).

7.05 To protect and restore native flora and fauna

As indicated in 2.07, Katoomba Falls Creek Valley has a rich diversity of birds. To maintain this diversity, the present contiguous area of native tree canopy should not be changed. Components of the flora that need particular protection are the natural stands of *Eucalyptus oreades* (which has a restricted distribution) and all areas of swamp vegetation. Previously recommended Actions 1 and 5 would assist in protecting flora and fauna, together with Actions 10 to 12 below.

- 10(a) Prepare a detailed professional plan for bush regeneration and weed reduction in the public land. This should aim to maintain some open grassy areas (which probably contribute to the high species diversity of birds) and could include the establishment of wetland vegetation as suggested in Action 3. Consider applying for financial support from the various bodies that provide funds for this type of work, for example, Save the Bush, New South Wales Environmental Trusts, National Estates Grants, Greening Australia, Landcare and the Water Board (1A).
- 10(b) Adopt a policy to prevent the removal or severe disturbance of native bushland before effective surveys for rare and endangered fauna and flora have been made (1A).
- 11 Place barriers to prevent car parking, and prohibit other land uses that may be detrimental to native trees in this particular area (Location 11 in Figure 11) which is important for maintaining the tree canopy and habitat value of the green corridor. Reject any proposals to remove the land from public control and ownership (2B).
- 12 Close old BMX road to prevent access by motor vehicles; revegetate with local native trees but leave a narrow unvegetated strip for use as a walking track. Retain the road where it crosses the swamp because removal at that point may result in draining of part of the swamp and reduction of its flood storage capacity (2B).

7.06 To protect Aboriginal cultural heritage

The study area was occupied by Aboriginal people until 1958. A number of the Aboriginal occupants at that time are still living and the area has considerable cultural significance for them and their families. The BMCC passed a motion in July 1992 to give due recognition to Aboriginal contributions to the Blue Mountains heritage. This motion should be implemented through the actions listed below. These are based on the recommendations of Dr V. Attenbrow whose report is presented in Section 14 (Part 2) and summarised in 3.01.

- 13 Note on appropriate BMCC records and plans that this area has special significance to the Aboriginal peoples and any proposals to disturb or cause impact to this significant area must be reported in writing to Daruk Local Aboriginal Land Council, and no action is to be taken until written comment has been received from Daruk Local Aboriginal Land Council. Make relevant BMCC staff aware of this requirement (1A).
- 14 As for Action 13, indicate on appropriate BMCC records and maps the locations of the sites referred to in Actions 15, 16 and 18 below and make staff aware of requirements for their protection (1A).
- 15 Protect this Pre-European rock shelter (with deposit) by maintaining dense vegetation growth and planting native shrubs to discourage use of foot track to the shelter. Do not disturb without consent from National Parks and Wildlife Service and Daruk Local Aboriginal Land Council (2A).
- 16 Protect this Pre-European open artefact scatter (See Photograph 6 in Section 14) by restricting vehicular access and allowing vegetation to re-establish. Do not disturb the area without consent from National Parks and Wildlife Service and before a more detailed archaeological investigation has been completed (2A).
- 17 Place a plaque and grove of appropriate plants (possibly Aboriginal food plants) in this general area in recognition of former Aboriginal occupation of the valley. The actual location, information and wording on the plaque, and species of plants should be decided in consultation with Daruk Local Aboriginal Land Council and with the Katoomba Aboriginal community (2B).
- 18 Engage an archaeologist with appropriate experience to carry out more detailed studies of post-contact Aboriginal sites. These should include:
 - a) home sites shown in Figure 14-4 (Part 2) to determine whether any structural or artefactual evidence still remains,
 - b) any other home sites not shown in Figure 14-4,
 - c) possible Aboriginal wells near Wells Street (further information on the location of these from The Friends of Katoomba Falls Creek)(2C).

7.07 To protect European cultural heritage

As indicated in 3.02 the public land contains some sites of considerable European historical interest, including part of the area that may be regarded as the birthplace of Katoomba. The actions below are intended to protect these areas and other items of historical significance.

- 19 Nominate site of North's Siding for listing in the BMCC Heritage Register as the birthplace of Katoomba (see 3.02). As such, the area should be clearly identified and marked, and protected from disturbance (1A).

20(a) Nominate this property (Location 20 in Figure 12) for listing in BMCC Heritage Register as the route of the historical cable tramway that played a significant role in the establishment of Katoomba. Do not permit severe disturbance of the area without thorough investigation and documentation by appropriate professionals (2B).

20(b) Acquire the property referred to in 20(a) and add to the public land (3C).

21 Carry out recommendations by Manidis Roberts (1990) to maintain heritage qualities of Katoomba Falls Kiosk and its surroundings (2B).

22 Engage an appropriate professional to investigate and document this area of early European occupation (Location 22 in Figure 12). Do not allow the area to be severely disturbed until this is done (2C).

23 Consider the nomination of Catalina Circuit for listing in BMCC Heritage Register (3C).

7.08 To enhance and maintain visual qualities

Visual qualities of the study area should be enhanced or maintained by previously recommended actions concerned with streamflow, soil stability and native vegetation all of which may be regarded as components of the visual environment. Significant visual problems in the public land are associated with rubbish dumping, and with buildings and other structures that appear neglected or dilapidated. The actions below are intended to redress these problems.

24 Construct barriers, fences or gates to prevent unauthorised motor vehicle access to the public near the Bush Fire Station, Wells Street, Lake Esplanade and Peckmans Road (between Wellington Road and Stuarts Road). These barriers should not prevent walkers and cyclists from entering the land (1A).

25 Remove disused pipes, electricity poles and wiring from Frank Walford Park, as recommended in the 1982 Management Plan (see BMCC, 1982) (1A).

26 Engage a landscape architect with experience in bush regeneration to advise on:

- how to improve the visual environments of Frank Walford Park and McRaes Paddock through the recommended bush regeneration programme (Action 10),
- possible alternatives to demolishing and removing the derelict buildings in Frank Walford Park (see Action 29),
- other desirable works in the formal garden area around Catalina Lake (for example, to improve drainage around the "picnic cave") (2A).

27 Allocate responsibility to one member of BMCC staff for attending to day-to-day problems of the public land. He/she should make weekly inspections of the area, report maintenance requirements promptly, and liaise with the public on matters concerning the area. These duties could be relinquished if Action 32 is implemented (2A).

28 Erect parking area entrance gate in view of sporting complex and nearby houses to discourage breaking in by drivers of unauthorised vehicles and vandals. The gate should be kept locked when parking area is not required. (2B)

29 Remove old tyres and other rubbish from the public lands, perhaps with community assistance organised as part of, or in a similar manner to, the annual "Clean Up Australia" campaign. (2B)

- 30 Demolish and remove derelict buildings in Frank Walford Park if alternatives are not recommended as a result of Action 26. (2B)
- 31(a) Restore/reconstruct the Madge Walford Fountain to a functional state. The fountain was originally established by Katoomba Quota which may be interested in assisting with its restoration. (2B)
- 31(b) Establish a plaque or appropriate information board in the gardens near Lake Catalina to acknowledge the community services of the late Frank and Madge Walford. (2B)
- 32 Engage a part-time resident manager/ranger for all the public land, with residence and office provided by BMCC near the swimming pool and indoor sporting complex (it is understood that a cottage owned by BMCC at this location was originally constructed for a similar purpose). A resident ranger is desirable to deter vandalism and rubbish dumping, and to bring items requiring attention to the notice of BMCC promptly. (2C)

7.09 To promote recreational and tourist values in the public land

In accordance with the principles listed in 6.06, Frank Walford Park and McRaes Paddock should be managed for local residents and backpackers/ecotourists while Katoomba Park should be managed mainly for general tourists. The actions below are consistent with these principles and should enhance the recreational values of the public land for both residents and tourists. Particular justification for Actions 34 and 35 is provided by the significance of walking for backpackers/ecotourists and elderly residents as explained in 3.05 and 4.08.

- 33 Investigate, plan and implement measures to facilitate the use of Catalina Circuit for a wider range of passive recreational activities by the community. These measures need not be particularly expensive and could include:
- turnstiles or narrow gates in the guard fences to facilitate access by pedestrians,
 - distance indicators, lanes and areas clearly marked to reserve sections of the tarmac for different uses such as walking, running, wheelchairs and rollerblading,
 - where necessary, separation the above sections by removable barriers which could be readily cleared to enable use of the whole Circuit when required,
 - a skateboard ramp in the area not zoned REC-EP adjoining the Circuit (specifications are available from the NSW Department of Sport, Recreation and Racing which also assists some local councils with construction costs).
- The details of this action should not be finalised until information from Action 48 can be taken into account. The intention is to permit and encourage use of the tarmac on all days (at least 28 per month) when it is not under hire for organised meetings. (1A)
- 34(a) Construct a gently graded path to facilitate access to Catalina Circuit by disabled people, wheelchairs, prams and aged walkers. (Plans and guidance for such paths are available from the NSW Department of Planning). (1B)
- 34(b) Close Lake Esplanade and revegetate with native plants. Lake Esplanade is not a through road and does not provide vehicular access to any private property, but enables rubbish to be off-loaded from vehicles into or near the public land. (1B)
- 35 Construct a 1.5m wide walking track with distance markers from near Katoomba Railway Station right through the green corridor to the existing track system in Katoomba Park. The intention is to improve recreational options and provide a self-

guided nature trail for local residents, disabled people, backpackers/ecotourists, birdwatchers etc. It is suggested that the track be designed and constructed in two stages:

- a) from Lake Esplanade (Action 34), to Katoomba Park (1A) — YES
- b) from Cascade Street (Action 42) to Lake Esplanade. (2C) — NO

- 36 Establish boards, signposts and labels at appropriate locations in the public land to provide information on natural/cultural features and to assist students/visitors in identifying birds, plants etc. This should be done in consultation with The Friends of Katoomba Falls Creek Valley and with National Parks and Wildlife Service, and should be consistent with the signage system adopted for Katoomba Park, as in Action 45. (2B)
- 37 Investigate options for expanding caravan park to provide more tent sites and caravan sites (not standing vans) which are undersupplied in the Upper Blue Mountains at present (see 4.07 and 4.08). These options could include the closure of oval no.2 which Manidis Roberts have shown is surplus to present and likely future recreational needs. It is recognised, however, that there could be much opposition to the closing of the oval as it may be regarded as a form of alienation of public land. Another option may be the leasing or acquiring of the vacant land on the opposite side of Peckman's Road which is listed in the BMCC Heritage Register as the site of Falls House (K42). The use of the area for caravans and tents need not harm its heritage values but, with imaginative planning, could provide opportunities for an appealing historical setting with information, photos and relics of Falls House (See Plate 10 in Section 3.02) on the site. This Action warrants relatively high priority, being a possible option for reducing the financial losses continually incurred in the management of Katoomba Park, as shown in the Manidis Roberts report. (1A)
- 38 Construct a low log fence or similar barrier to contain car parking at organised meetings for Catalina Circuit. Consider terracing of the site and pervious "lattice paving" to improve parking surface, reduce surface runoff and reduce soil erosion. (2B)
- 39 Clear old overgrown vehicular track to facilitate its use as a walking track; this would also form part of the track proposed in Action 35. (2B)
- 40 Level and revegetate this area with grass and native shrubs; promote its possible use for educational activities, picnicking, overnight camping by walkers, open air displays (such as sculpture, wood carving, old mining relics) and as a site for the suggested skate board ramp (Action 33). Restore electricity supply for use by authorised people. (2B)
- 41(a) Erect a fence around this oval to stop cricket balls etc.(2B)
- 41(b) Construct a shelter shed for oval users and picnickers. As this is on Crown Land and could benefit tourism, it is possible that the NSW Department of Land Management and Conservation would contribute to the cost. (3B)
- 42(a) Design and construct a system of steps or other means of access in this vicinity to the walking track of Action 35. This will require careful investigation and siting as the steep slope here (Location 42 in Figure 12) is probably unstable. (2C)
- 42(b) Close this section of Walgett Street and add to the public land. The road here is unformed and unused, and its closure would provide a direct frontage for Frank Walford Park to Cascade Street. (3C)

- 43 Investigate possible sites in this section of swamp for a boardwalk to assist observations of swamp biota. Consider the construction of this facility if suitable items of interest are present and if the project will not cause environmental damage. (3C)
- 44 Close Lomond Street and add to the public land for the following reasons:
- a) it is not required for access to any privately owned property,
 - b) it has no through traffic,
 - c) part of it is not visible from houses and it is therefore used for rubbish dumping,
 - d) at present the continuity of public land through the "green corridor" is broken at this point; if Lomond Street is revegetated and added to the public land the continuity would be maintained and the bird habitat value improved,
 - e) the walking track of Action 35 should pass through here and vegetated public land would provide a more suitable setting for the track than at present. (3B)
- 45 Adopt the recommendation of Manidis Robert (1990) with regard to the updating of recreational/tourist facilities and signage system in Katoomba Park. The same signage system should also be adopted for McRaes Paddock and Frank Walford Park (2B).
- 46 Mark car spaces on tarmac surrounding the Madge Walford Fountain and encourage car parking here (in preference to some other areas such as Location 11 in Figure 11) for users of the various recreational facilities (3B).

7.10 Other actions to achieve objectives of plan

- 47 Arrange a programme of independent noise measurements at sensitive residential locations and bird nesting sites for at least five typical motor sports meetings on Catalina Circuit. Review the use of the Circuit for such meetings after these data are available, taking into account, also, the information from Action 48. (1A)
- 48 Carry out a study of possible hazards to the safety of people walking through or using the public land and its facilities, and the associated BMCC liability for injuries or deaths. Particular attention should be given to the risks associated with the use of Catalina Circuit for authorised car club meetings, having due regard to the present condition of the tarmac, safety barriers etc. Implement feasible recommendations from the study to reduce the risks, for example with more warning notices, more frequent maintenance etc. (1A)
- 49 As pointed out in several questionnaire responses, the sloping concrete edges of Lake Catalina are sometimes covered with an algal slime which makes them slippery and dangerous. Eliminate this hazard by constructing a low retaining wall around the water's edge, filling behind this with gravel and sand, and planting appropriate native hydrophytes (such as ferns and sedges). This could be planned and designed as a preliminary stage of Action 5. (2A)
- 50 Set up a 527 Committee to monitor the management plan for McRaes Paddock, Katoomba Park Extension and Frank Walford Park, and to provide feedback, advice and assistance to BMCC on related matters. The membership should include two members of BMCC staff, two members of the Friends of Katoomba Falls Creek Valley, two representative of sports clubs using the area, and two local residents not associated with any of the other groups on the Committee. The National Parks and Wildlife Service and Water Board

*Aboriginal Members - Daming (Joan Cooper)
- Gundungama.*

should also be invited to attend meetings. The Committee could possibly also seek recognition as a Total Catchment Management (TCM) Committee and this should stimulate particular interest in the area by the Water Board. (2B)

51(a) Re-subdivide and consolidate the 32 separate lots comprising McRaes Paddock and Katoomba Park Extension to provide two single lots (See 4.02). (3B)

51(b) Rationalize the naming of the public land. The present confusing overlap of "Katoomba Falls Reserve" and "Katoomba Park" could cause misunderstandings and contribute to inefficient management. (3B)



PLATE 16 Lake Catalina and nearby gardens are interesting and pleasant features of Frank Walford Park. The proposed management plan is concerned with these features in recommendations 5, 26, 31 and 49.

52 As an ultimate longer-term goal, particularly if the Blue Mountains gains official international recognition as a World Heritage Area, make conceptual plans for a first class visitors' centre and World Heritage Gateway in the north-eastern section of the Valley. This should be as close as practicable to Katoomba Railway Station to cater particularly for overseas and interstate ecotourists (See Section 4.09 and Plate 14). Such a centre should provide information and amenities, and promote the adventurous, aesthetic, cultural and educational features of the Blue Mountains natural environment. An alternative but similar project would be a Mountains Environment Centre along the lines of the Coastal Environment Centre recently established by Pittwater Municipal Council. Following the example of that council, corporate sponsorship or assistance could be sought in obtaining suitable premises and in staffing the Centre. Either of these suggestions would be completely compatible with all the other recommendations, and could be regarded as an ideal culmination of the proposed management programme.

(priority and timing not specified)