

Guidelines for designing and managing public open space

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ABSTRACT

This paper reports on a recent study entitled *Public Open Space and Dogs: A Design and Management Guide for Open Space Professionals and Local Government*. The study confirms the case for continued access to public open space by dogs and assesses the main policy responses to the issues raised. It highlights the strengths and weaknesses of each response with the aim of assisting local authorities to make better policy choices.

What matters most is not whether dogs are banned or allowed in a particular park but the combination of options that exist overall. The Guide's principal concern is therefore with planning at the area or municipality-wide level. A balanced approach such as this will not only benefit dogs and their owners as a group with legitimate needs and also the wider community as well as those charged with the responsibility of enforcing animal management bye-laws.

The Guide sets out the strategic framework to assist local authorities to assess their own requirements and choose the right combination of options in a balanced and informed manner. It provides the background and supporting information required and a framework for councils to initiate a process in their own communities - the more detailed planning can then be done at the local level.

INTRODUCTION AND BACKGROUND TO THE STUDY

This paper summarises a study of the use of public open space by dogs and their owners. The study was undertaken by Harlock Jackson Pty Ltd, Planning and Development Consultants in association with Associate Professor Judith K Blackshaw (Animal Behaviour and Welfare) of the University of Queensland and Jane Marriott, Landscape Architect. What we set out to do was to apply the principles of strategic planning to what had become very visible issues in local government all over Australia. Its aims were:

1. To clarify the needs of dogs and their owners for access to public open space.
2. To improve understanding of the benefits of access to public open space by dogs and their owners.
3. To develop principles for accommodating dogs and their owners in public open space.
4. To recommend improved techniques of planning and design to improve the quality of the experience for dogs and their owners and to minimise potential conflicts.
5. To present the findings in a format that will assist local government and other park management authorities to assess their own requirements for accommodating the needs of dog owners and non-dog owners using public open space.

The final document is entitled *'Public Open Space and Dogs: A Design and Management Guide for Open Space Professionals and Local Government'*. It was released in August, 1995. In this paper, I describe briefly why we now need to plan for dogs' use of public open space. I then review the case for dogs' access to parks including the reasons why they need access as well as associated conflicts arising from this access. The third section of the paper describes the main elements of the Guide including four policy making principles, an assessment of the access options and guidance on establishing a strategic municipal wide framework. The fourth section contains additional design and management guidelines for individual parks. The paper concludes with suggestions about how to use the Guide.

THE NEW OPEN SPACE ENVIRONMENT

Planning for open space was simpler thirty years ago. Parks were typically one-dimensional with needs being addressed at a very general level, ie passive (parks and playgrounds) or active (sports ovals). Today planning is highly sophisticated because of better techniques and community pressure. Increasingly councils are preparing open space strategies for their whole municipality.

By and large dogs haven't been considered as a separate user group in open space planning. In the past this probably worked well because few restrictions were placed on dogs. However the more complex management environment which has led to further restrictions on dogs' access to public open space means that this is no longer the case. We now need to plan systematically for dogs' use of public open space. This Guide aims to show councils how.

THE CASE FOR DOGS' ACCESS TO PUBLIC OPEN SPACE

Why dogs need access

There are a number of reasons why dogs and their owners need access to public open space. It is crucial that we understand them and recognise that they apply not only to dogs and their owners but also to the wider community as well as to those responsible for animal control.

1. Dog owners are a significant group of park users

On numbers alone, dog owning households deserve consideration because they constitute such a large group within the community - forty-two percent of Australian households own one or more dogs (Reark Research 1995).

If we truly aspire to catering for the diverse recreation needs of all members of the community (and this is fundamental to recreation planning), then we are obliged to accommodate dog owners' needs as well.

2. Links with appropriate behaviour

Public parks are important environments in which owners can train and socialise their dogs in acceptable behaviour.

Dogs also need on-going exposure to the public realm to reduce boredom and pent-up energy and provide them with a more enriched existence. Boredom and pent-up energy have been linked to some behavioural problems at home such as severe owner dependence, some types of aggression and excessive barking.

3. Benefits for dog owners

Owning a dog encourages people to exercise and visit their local park; a positive feature of pet ownership for everyone.

Dogs would also seem to play a role in facilitating social contact in the public realm (see for example Messent 1983, 1984; Adell-Bath et al, 1979; Norling et al, 1981). This too is a positive feature of pet ownership especially for those with limited access to social opportunities such as the elderly and parents isolated at home alone during the day with small children.

4. Effects of urban consolidation

All Australian governments are pursuing higher densities in major urban centres. This means smaller homes and back yards. As more people live in compact types of housing there will be greater need for access to public open space by all members of the community, including dog owners.

5. Compliance with access laws and policies

If dog owners perceive bye-laws to be unfair, eg banning of dogs from all parks or not permitting free-running in an area where there is a demonstrated need, it may elicit a defiant rather than a compliant response from dog owners - they may ignore the bye-laws in protest. If, on the other hand, dog owners understand the reasons for restrictions on access and accept them as reasonable, they will be more likely to voluntarily comply with associated restrictions.

A corollary to this is that the impact of education programs can only be limited unless combined with a park access policy that is perceived to be fair by dog owners.

Potential conflicts

On the other side of the access equation are the conflicts. A number of features of conflict need to be understood.

- Conflict is inevitable in urban areas; it is not confined to park management, nor indeed to dogs' use of public parks.
- Conflict is a matter of degree with its impact ranging from threats to safety to detracting from the quality of the recreational experience.
- People's reaction to conflict is subjective - what is intolerable to one person may only annoy another and may not even be noticed by another.

Having said that I don't want to underestimate or trivialise the seriousness of some problems, however I do urge park authorities to critically appraise reported problems and keep them in perspective: they represent a challenge which is not always insurmountable.

The conflicts attributed to dogs and their owners in parks are discussed briefly below. Whether a perceived conflict warrants attention requires judicious assessment of circumstances, a recognition of the inevitability of conflict in urban society and a recognition of the capacity of many issues to be blown out of proportion. We need to carefully weigh up competing priorities of different groups and look first at ways to better manage conflict - trying to eliminate it altogether can be unrealistic and counter-productive.

Faeces

Roundworm is a prominent health concern in relation to dogs' faeces. Roundworm eggs are passed to the outside environment in the dog's faeces. The eggs take two weeks to a month to become infective so there is no risk from fresh faeces. However the eggs may remain infective in the soil for years.

Humans do not develop adult roundworms, however migration of larvae through the tissues and organs can cause disease. The primary transmission to humans is through contamination of the hands by eggs and subsequent ingestion of the eggs. Direct contact between humans and infected dogs does not play a role in disease transmission.

Young children have the greatest risk of exposure. They may inadvertently eat dirt or grass or touch their mouths with hands contaminated with old dog faeces containing infective roundworm eggs. People in hand activated wheelchairs and active sports players may also be at risk.

Preventative measures will reduce risks. The roundworm is not present in dogs that are treated for worms. Removal of faeces before the roundworm eggs become infective is also important.

Aside from potential health risks is the effect on aesthetics and the unpleasant experience of dodging droppings. A range of programs are being used to encourage people to pick up their dogs' faeces. There are advantages and disadvantages with each and I expect the best will be copied and improved in the future as more programs are trialled and we learn from experience.

Aggression

I don't want to underrate the seriousness of dog attacks but the extent to which the media amplifies isolated problems out of proportion needs to be questioned. Most dogs don't bite people or other dogs. Those that do are either frightened, dominant, protective or possessive. Attacks against wildlife is part of the predatory instinct natural to all dogs.

We need to understand how the triggers to aggression vary in different settings and so avoid simplistic management mechanisms. For example very few dogs that attack livestock are dangerous to people (Jennens 1992). Similarly, dog attacks may be more likely in the dog owner's home or immediate vicinity than they are in public open space (Thomson 1990; Podbercek and Blackshaw 1990). Attacks on private property frequently happen when a dominant, protective or injured dog is not adequately supervised with children and visitors. These triggers are not present when a dog is in the neutral territory of a public park.

Barking and other nuisance behaviour

Nuisance behaviour also varies in different settings. In the neutral territory of a park dogs are more likely to be engaged in 'joyful' behaviour which means they will explore rather than dig and will be intent on running, sniffing and playing.

THE MAIN ELEMENTS OF THE GUIDE

Establishing the principles

Local authorities have responded to the changed management environment in a variety of ways and with varying levels of success. New ideas are being tried but often on the basis of old assumptions. What is needed is a new set of principles that challenge or at least clarify these old assumptions. It is necessary to explore these principles before we look at more specific policy recommendations.

The *first* principle is to recognise that dog owners are as legitimate a group of clients as any other. If we treat them as a client group rather than as a problem generator, their needs are considered as an integral part of the decision-making process. We don't dismiss or underestimate the conflicts but use a multi-method approach in addressing both their needs and the problems generated while simultaneously asking for more tolerance from the rest of the community.

The *second* principle is to understand more clearly the needs of both dogs and their owners. Management practice to date has been hampered by a lack of information - inaccurate in the case of dogs' needs and simplistic in the case of dog owners' needs.

The most fundamental need for dogs in relation to the public realm is that they be taken out with their owner as much as possible. This enables them to experience the full range of benefits - exercise, training, socialisation, relief of pent-up energy as well as time and fun with their owner and other dogs. They don't need to run freely off the leash as much as they need interaction with their owner and diversity of experience (sights, sounds, smells, textures, other dogs and humans). Thus the emphasis should be on maximising the number and range of opportunities available both on and off leash.

For dog owners it is important to recognise that they are not all the same. Different groups have varying characteristics in terms of age, mobility, time constraints, inclination, housing, family and so on. We need to avoid defining their needs in terms of one universal set of prescriptions. Instead a range of opportunities should be provided to accommodate varying needs with the key criteria being accessibility and diversity. This is consistent with accommodating dogs' needs.

A further consideration to remember is that it is the owner's outing as much as the dog's! Often areas set aside for dogs, especially those designated for free running, are the ones left over that no one else wants. A barren or unsafe park environment won't attract dog owners on a regular basis; an attractive and safe environment will, and may even improve compliance with access restrictions in other parks.

The *third* principle is to aim for integration of dogs with other parks users. Separation (ie banning or special dog zones) is warranted in some instances but should not be a philosophy upon which to base a dog access policy.

There are several reasons for this:

1. Separation means that few parks are inevitably made available for dogs because of scarcity of park resources.
2. Separation means that dogs miss the benefits of a wide range of outings.
3. Separation concentrates potential conflicts into isolated spots.
4. Integration means dogs and their owners can play a part in reducing crime in parks.
5. Integration means flexibility - it is amenable to changes in policy in the future.
6. Integration as a park management principle is a practical necessity today because of the diversity of activities that need to be accommodated.
7. The cost imperative in government means that the most public facilities now need to accommodate multiple uses.

This leads us to the *fourth* principle; that councils should apply a strategic approach that considers dogs' access on a comprehensive municipality-wide basis rather than on a piecemeal park-by-park basis. The strategic approach aims for a hierarchy of opportunities that provides for a diversity of opportunities for 'daily', 'regular' and 'occasional' use (more on this later).

Assessing the options

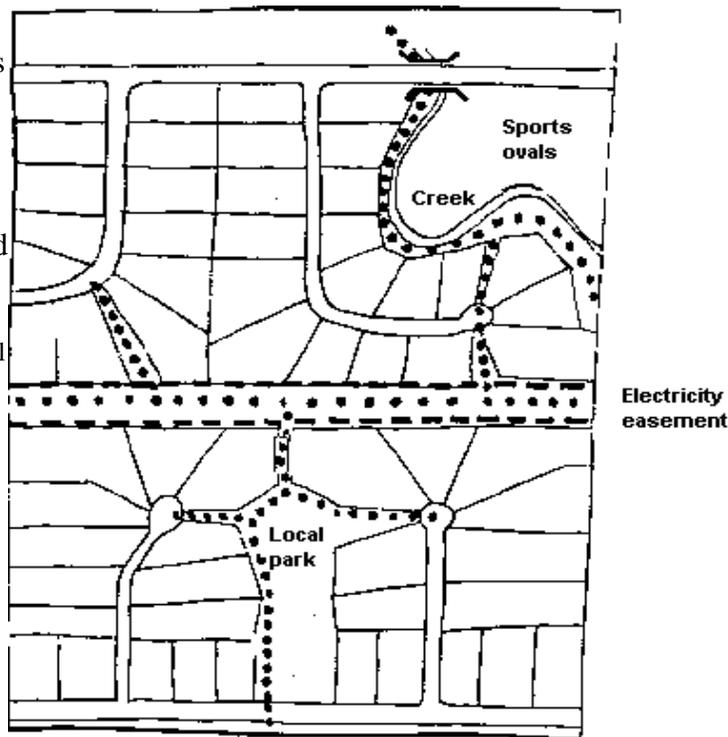
These principles give councils a sounder basis for assessing the options for dogs' access to public open space and for understanding the circumstances in which each is most appropriately used.

On-leash areas

The benefits of on-leash areas are underestimated in Australia. In fact they provide an appropriate context for socialisation and some forms of training. They also expand the diversity of experience for the dog. Some animal behaviourists go so far as to say dogs can be exercised just as well on the leash as they can off. In many areas, leashed access will be the basis of a dog access policy although there are many successful examples where unleashed dogs are allowed in nearly all parks in a municipality.

It would seem that dog owners may be more likely to keep their dogs leashed in areas where they keep walking. If this proposition is accepted a design measure to encourage would be the development of linear parks ie along watercourses, roads, disused railways, electricity easements etc (figure 1). Even existing parks can be provided with meandering paths which provide interest and diversity for dogs and a sense of purpose for dog owners.

Figure 1: Continuous linear paths with multiple access points are ideal for walking dogs



In selecting linear parks councils should be wary of conflicts with other linear park users such as cyclists and horse riders. Some councils are now duplicating tracks to separate different users eg one track for pedestrians and dogs, another for cyclists and horse riders (refer figure 2).

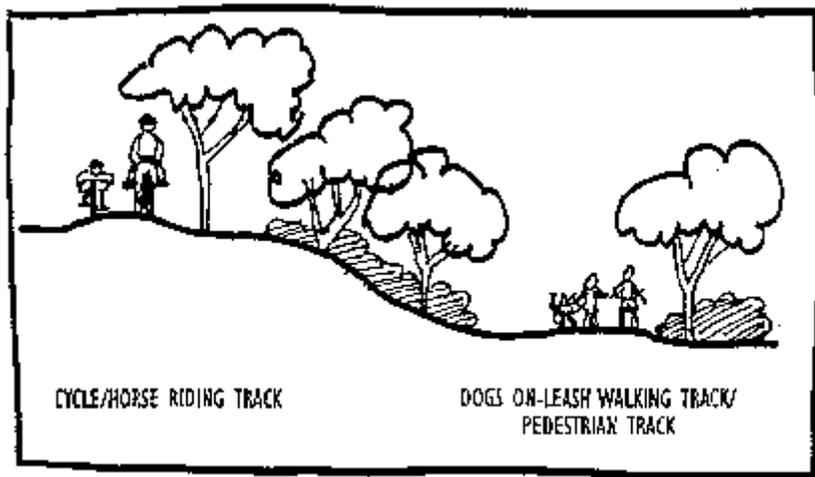


Figure 2: Track separation

Free running areas

Free running areas provide the opportunity for unstructured, 'joyful' play without the restrictions of a leash. They allow for a form of interaction with their owner that is not possible when they remain leashed eg some forms of training and play such as 'fetch'. Dogs also benefit from exercise and relief of pent-up energy although this is possible in on-leash areas as well.

Problems commonly attributed to free running areas include a greater potential risk of attack to a person or animal.

What to look for in selection of free running areas :

- Parks that can withstand free running by dogs, including utility easements.
- Parks that are already fenced to park boundaries, that have natural boundaries or which require only minimal fencing.
- Parks where neighbours are sufficiently screened either by distance, topography or landscaping (refer figure 3).
- Parks that meet the needs of dogs and their owners as described in the Guide.
- Parks that are not associated with established interests.
- Pieces of land that suddenly become available for recreation use.

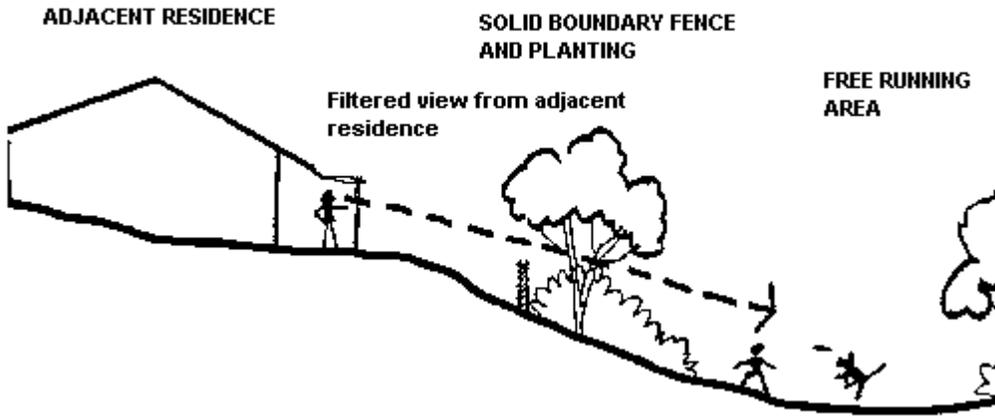


Figure 3: Use topography, planting, fencing and distance to screen effects on neighbours

What to avoid in selection of free running areas :

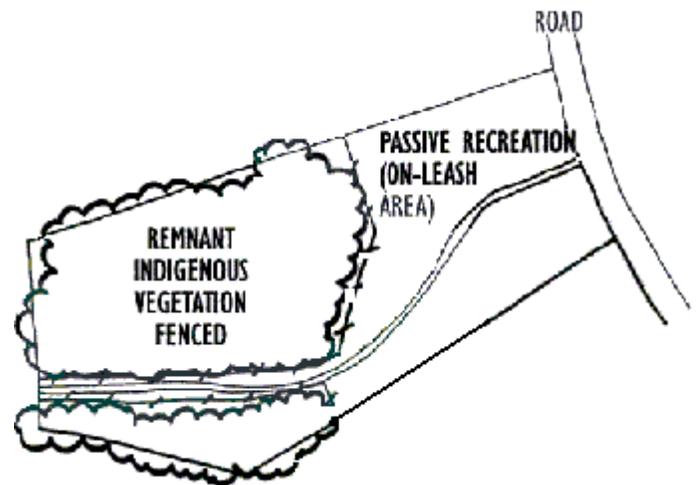
- Areas in the immediate vicinity of children's playgrounds.
- Areas that attract high concentrations of people.
- Picnic areas - the presence of food may provoke annoying behaviour by dogs.
- Sports ovals - although ideal for free running dogs, they are unsuitable unless faeces are removed by maintenance staff on the day of play.
- Botanical gardens.
- Environmental protection areas.
- Parks where horses, bicycles and motor bikes are present (although they are perfectly compatible on a time share arrangement).

Signs should be erected to alert all parks users to expect unleashed dogs in free running areas.

Banning dogs from parks

Councils have the right to ban dogs from parks, however it should be a last resort measure and only after a careful and impartial assessment of the alleged conflicts, the effects on opportunities available for dogs in the immediate locality and any alternatives to banning. Fencing is increasingly used to protect sensitive parts of parks from human use (refer figure 4).

Figure 4: Fence sensitive parts of parks from human activities



Different zones in one park

Sometimes the access policy varies within one park. Particular attention needs to be paid to design and layout to ensure they work well:

- It should be clear on the ground where one zone stops and another starts (rather than relying on explanatory signs and brochures). Obvious features should be sought to define zones such as internal roads, rows of trees, planting strips, marked changes in topography, landscaping and paving (refer figures 5 and 6).
- Appropriate signage should be provided which is specific and clear (refer figure 7)

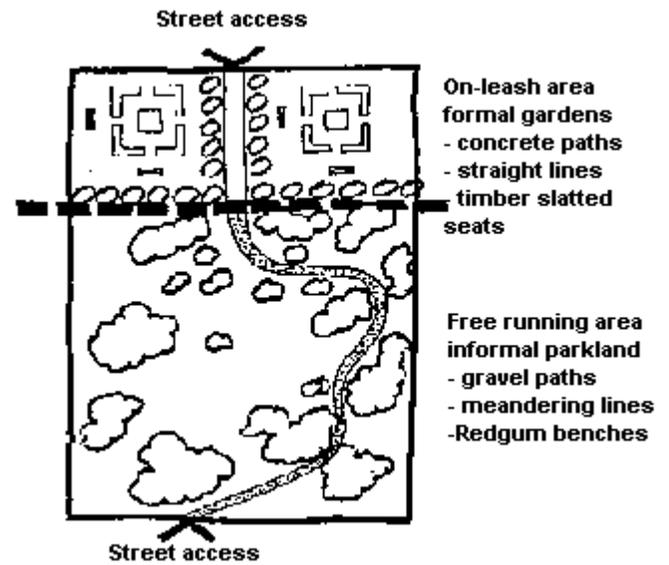


Figure 5: Use subtle changes to create design legibility in multi-zone parks eg materials, planting styles, park furniture

Bike track passes through the edge of free running area and is separated by topography

Steep embankment heavily planted

Free running area

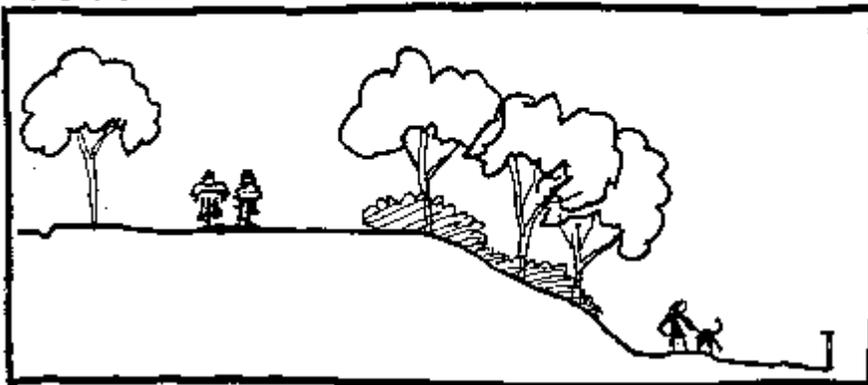


Figure 6: Use natural topography to separate activities in a multi-zone park

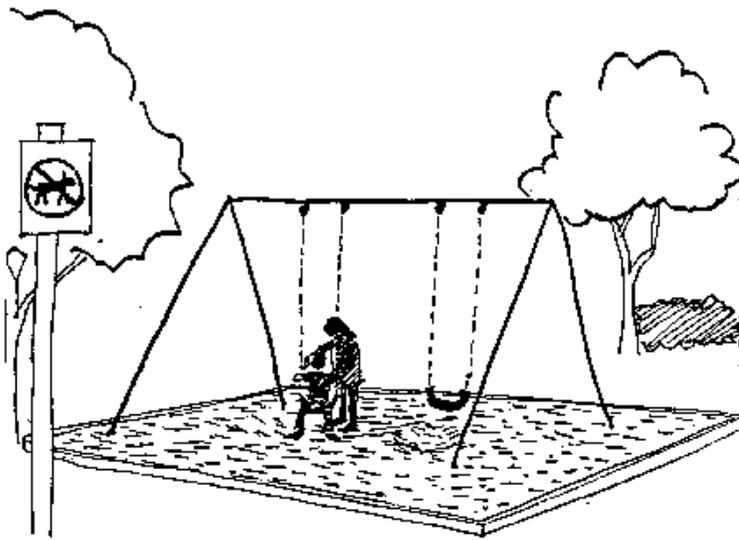


Figure 7: This sign is not clear - are dogs banned in the whole park or only in the vicinity of the play equipment?

- Each zone should preferably have direct access from the street to minimise the requirement to walk through one zone to access another.
- Buffer or transition zones will minimise any spill-over effects (refer figure 8).

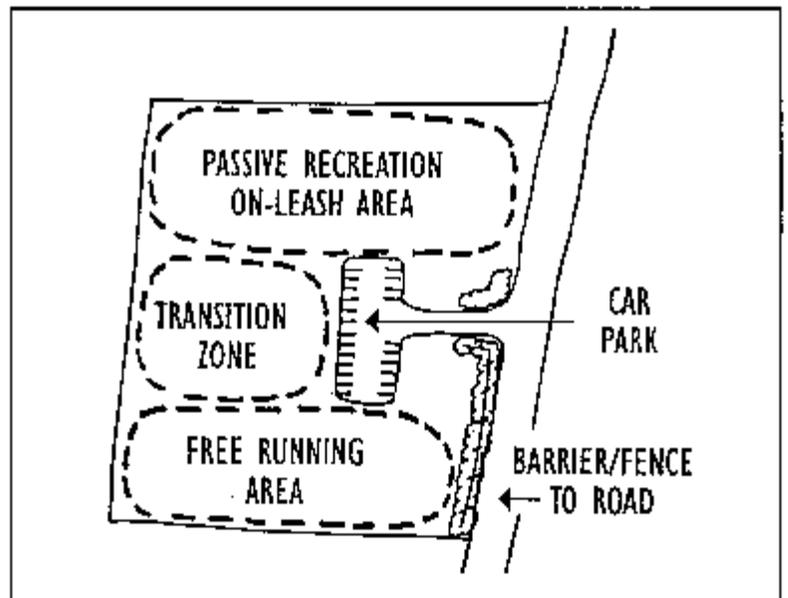


Figure 8: Separate activities with a transition zone

Time share arrangements

Time share gives dogs free running access at particular times of the day. It is a workable arrangement that accommodates everyone's needs however:

- **It concentrates potential problems into a restricted number of hours.**
- **Faeces may be a problem at other times.**
- **It disadvantages dog owners who are not able or inclined to use the park at the specified time, eg shift workers, the elderly, parents with small children.**

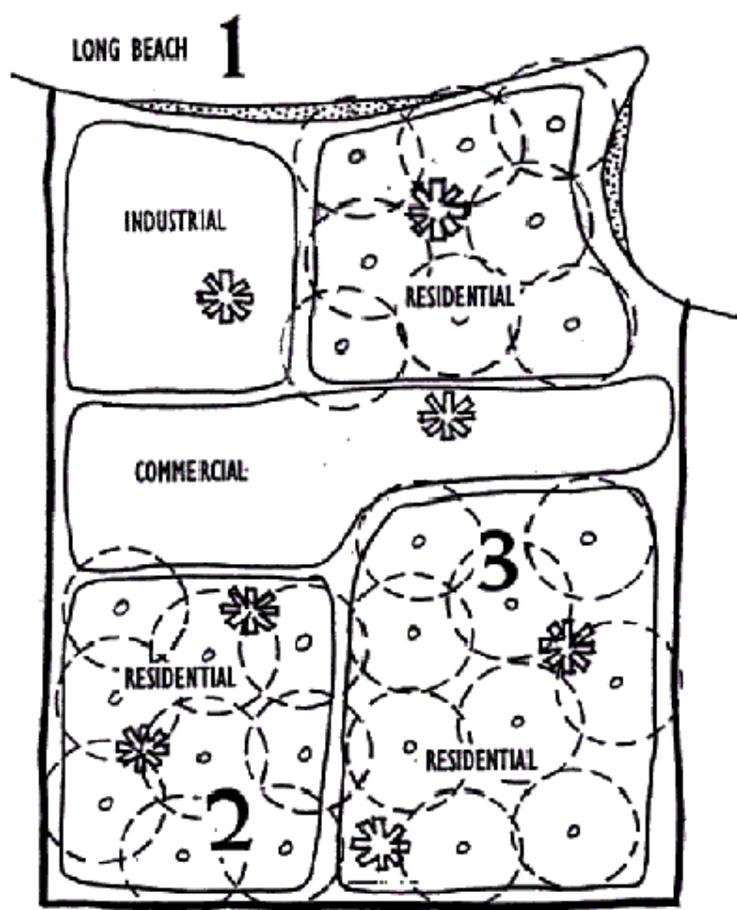
Establishing a municipality-wide framework

The above options have been used in many different ways throughout Australia. It is important to understand the strengths and weaknesses of each and ensure that they are used appropriately. However what is important is the combination of options that exist overall, not the policy affecting a particular park.

In too many municipalities we found an over-reliance on free running in combination with banning reflecting a separation rather than an integration philosophy. On the face of it this would seem to be an easy way to 'solve' the problem of conflicting needs. We consider it inequitable and probably counter-productive. Instead the starting point should be to allow dogs in all parks in a municipality (in most cases this means on a leash). Areas where they are banned and/or allowed off leash can then be designated after a thorough and impartial assessment. This provides for a package of opportunities while accounting for any incompatibilities.

The question is where do you draw the line. I can't answer that. Each community must decide for itself depending on local conditions and pressures. What I do suggest is that councils aim for a hierarchy of opportunities throughout the municipality that provide dogs and their owners with 'daily', 'regular' and 'occasional' opportunities. At the bottom of the hierarchy (ie daily opportunities), dogs are fully integrated with other park users. As you move to higher levels there is more priority given to dogs in planning, design and management. Map 1 illustrates the approach in a hypothetical municipality.

Community consultation is of course assumed with the strategic approach. The Guide provides suggestions but councils should devise their own process according to local circumstances and pressures.



Map 1: 'Anytown': A hypothetical municipality conceptual illustration of hierarchy of access opportunities for dogs

ADDITIONAL GUIDELINES FOR THE SELECTION, DESIGN AND MANAGEMENT OF INDIVIDUAL PARKS

The guidelines list additional features to be considered when planning for dogs' use of public parks. However it is important to recognise that there is no one right way. It depends on local conditions and pressures. No park is ever likely to satisfy all criteria.

Traffic and car parking

Parks with car parks should be favoured where dog owners will be drawn from a wide catchment (ie occasional opportunities) and if there is limited availability on the street.

A park with a several entry points from different streets will improve accessibility and increase the capacity of the existing road system to accommodate the demand for car parking (refer figure 9).

Access from courts and dead-end streets can create parking and circulation congestion although the effects may not be discernible with several access points.

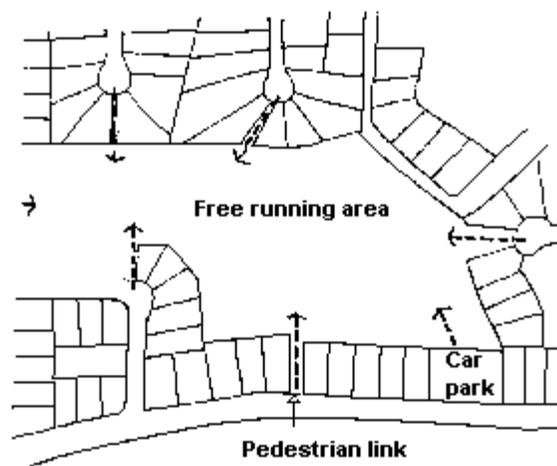


Figure 9: Parks with multiple access points mean improved accessibility and less impact on neighbours from all park activities

Designing parks with dogs in mind

Paying attention to the needs of dogs is a positive statement of support to dog owners. The design psychology should emphasise the interplay of movement, texture, form and line. Key principles are variety, stimulation and challenge, unpredictability and interest with a view to providing a rich and varied sensory experience.

A combination of open spaces for running and smaller spaces with detail should be sought. All natural and existing elements should be retained. A manicured park environment is not necessary.

Varying contours greatly adds to the appeal of a park for dogs and acts as a sound barrier to neighbouring residents. Slopes should not be so steep that they are inaccessible for humans (refer figure 10).



Figure 10: Undulating land greatly adds to the appeal of a park for dogs

Planting adds to interest in a park especially where the terrain is not able to be modified. It provides a textural and visual contrast to mown tracts. A balance obviously needs to be struck between creating interesting spatial arrangements of plants and providing so much planting that owners lose sight of their dog in free running areas.

Planting can be used to help signal the end of one zone and the start of another.

Dogs are attracted to long grass for defecating. Tracts that are mowed less frequently could be provided to allow faeces to disintegrate naturally. Grass of say 10cm would be appropriate and have the advantage of reduced maintenance.

Dogs enjoy smelling their surroundings so soft surfaces that retain odours are preferable to hard surfaces.

Sandpits, while ideal for dogs are not encouraged because of their inevitable attraction to children.

Fencing and treatment of boundaries

Fencing can be used for restraint, as a slowing down mechanism for free-running dogs and for visual literacy in a multiple access zone park. The following considerations are relevant to fencing and treatment of boundaries.

- Sites that are already fenced to roads, that require only minimal fencing or that abut other uses should be favoured in selection of free-running areas. Alternatively natural barriers or distance can be used to prevent dogs from straying.
- Parks that pass under roads often create the natural barrier required to busy roads. This is commonly used in new parks and should be favoured for free-running areas (refer figure 11).
- Fencing may not be required if a transition zone is provided between a free-running area and other parts of the park.
- Fencing can provide extra protection for sensitive park activities. This is consistent with current practice eg around play equipment and environmental protection zones.
- Fencing can be used to provide visual definition to different parts of a multiple zone park ie to minimise confusion about where one zone stops and another starts although plenty of other design mechanisms are available and fencing should only be used as a last resort.

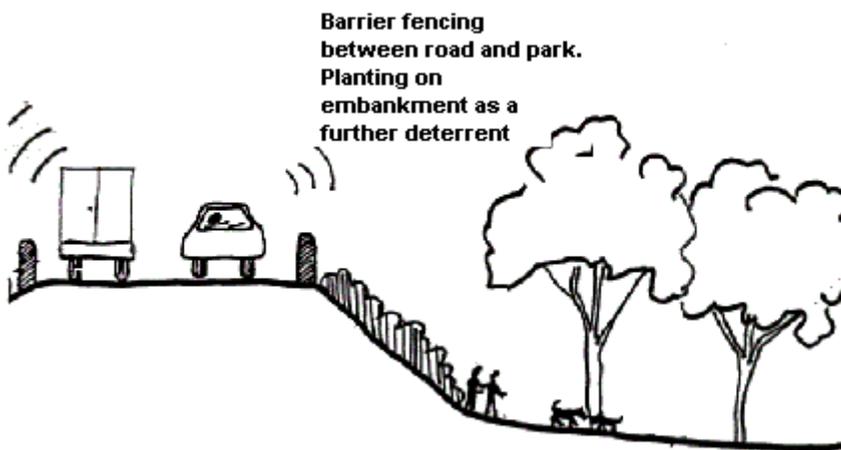


Figure 11: Use natural barriers as boundaries to free running areas

Removing faeces

Where necessary programs to assist owners to remove their dog's faeces should be provided. At this stage, there is insufficient evidence to support the use of any one mechanism. My feeling is that a combination of options will be appropriate. The following list highlights some of the options.

Management based options are those provided by the management authority. Options include ground-installed disposal units, on-site pooper scoopers and plastic bags, dung beetles, leaving unmown tracts for defecating, even the 'pooch patch' as introduced by Warringah Council in Sydney.

Owner based options, eg pooper scoopers and plastic bags, place responsibility for retrieval of faeces with dog owners. Their advantage is that people can select the option that best suits their needs, there is little cost to local authorities and no vandalism. These options can be unreliable because owners need to remember to bring their chosen option with them.

Signage

Advisory signs should not be a substitute for good park layout and design. As a general guide - less is better to avoid visual clutter. Too many signs are generally not noticed or read. Signs are necessary at every entry point to the park and between one zone and another.

THE NEXT STEPS

My preference would be for every municipality in Australia to complete a review of the open space opportunities for dogs based on the principles suggested. If your council is rewriting local laws then this is probably happening already. If it isn't you may want to initiate a review although very often no changes would be warranted as no problems are discernible. The Guide provides the background and supporting information as well as an overall framework to review local laws in an effective way. In the meantime, it can be used to respond rationally to demands in individual parks.

I also hope the Guide will be used by community groups in securing appropriate changes to access policies and laws. Such groups usually lack important information and our report aims to fill that gap.

The Guide should also be used to ensure dogs are considered in broader open space planning. This presently does not happen and as a consequence dog owners' needs are all but ignored. It is crucial that this inter-departmental gap is closed. Dogs simply must be included in open space planning and I urge all of you to insist that this happens not only for the benefit of dog owners but to improve everyone's experience of public parks.

Finally, there is a place for the Guide in planning the form of future suburbs. This necessarily occurs at a general level so detailed input is not envisaged. However there is certainly scope to better accommodate future dog owners needs on the urban fringe, eg with better linear parks and designation of free running areas. Basic planning ahead of development may eliminate problems in the future. So if you live or work in a developing municipality, liaise with your town planners, get them to absorb our findings and input them into structure plans.

Don't assume that any of this will happen automatically; it won't unless people who are cognisant of urban animal management issues insist that it does. This means actively educating your planners about the need to accommodate dog owners' needs.

CONCLUSION

That dogs should be allowed access to public open space is a basic premise of this study. That is not to say that problems don't exist; only that the benefits should outweigh the disadvantages and that there is considerable scope for the problems to be better managed.

Part of the problem is that the whole area of urban animal management is so new. Councils are grappling with very difficult questions but lack important information to address them in an effective way. *Public Open Space and Dogs* emphasises a new approach to the way we consider these issues. We don't provide prescriptive answers - that is not possible. What we do provide is a framework and the supporting information for Councils to undertake a strategic assessment of the issues as they exist in their own localities.

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