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**Open Space for Sport
and Recreation**



**Planning Principles and Implementation Notes
for Local Government**

Final Report September 2003

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Consultation Acknowledgement

“Open Space for Sport and Recreation - Planning Principles and Implementation Notes for Local Government” has been developed in two phases. The first phase resulted in the manual “Open Space for Recreation and Sport: Planning Principles”, published in 1998. The implementation notes were then developed after the commencement of the Integrated Planning Act (1997) to assist local governments consider a range of recreation and sport planning and implementation issues.

Consultation has occurred with a range of local governments at various stages in preparation of planning schemes and with a mix of urban, regional and rural local governments. In addition to the feedback received from local governments, regional planning officers from the Department of Local Government and Planning have also provided comments, coordinated by an officer in the Legislation and Policy Development Unit.

Consultation also occurred with the Local Government Association of Queensland, Queensland Parks and Wildlife Service, Regional Landscape Unit, Environmental Protection Agency, Department of Natural Resources and Mines and Queensland Transport.

In addition, comments were received from the Planning Institute of Australia (Queensland Division).

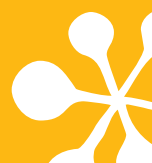


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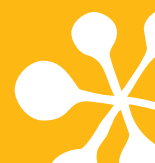
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1. Planning Principles for Recreation and Sport

1.1 Introduction

Recreation and sport are important parts of Queensland's society, culture and economy. Queenslanders and visitors to Queensland often base their holidays on recreation activities such as fishing, camping, surfing, scuba diving, four wheel driving, bush walking, horse riding, cycling and boating. In 1997, for example, over 1.161 million camper/nights were generated in south eastern Queensland (1997 South East Queensland Outdoor Recreation Demand Study). Many people also invest considerable time, money and energy participating in sports or watching major sporting events. Some people even make decisions about where they will live based on access to recreation opportunities.

Recreation and sport can also bring significant economic benefits. It is therefore imperative that councils adequately provide for recreation and sport services in community planning processes. By offering a range of high quality recreation and sport opportunities, local councils can generate economic activity and, in some cases, establish a local industry based on recreation and sport.

Successful planning for recreation and sport is based on consideration of current and future demand, existing options for meeting those demands, the nature of spaces required for particular activities, and the types of services that support particular activities.

While land for recreation and sport can come from a variety of sources, and through a variety of mechanisms, it should be allocated as part of the town planning process, so recreation and sport infrastructure can be developed along with other essential services to meet people's needs.

Recreation planning should also be integrated into council's corporate and land use planning frameworks. Planning for recreation and sport can maximise the benefits derived from available funds. Recreation and sport may compete or conflict with, other land uses (eg. water catchment protection, agriculture, residential development). As land values rise and competition for land among fundamentally incompatible land uses increases, the need to protect areas for recreation and sport through planning schemes and legislation becomes more and more critical (Batt, 1996 unpublished). Good recreation planning can avoid or minimise these conflicts and define the most sustainable use of the available land.

Furthermore, state land such as National Parks and State Forests are primarily intended for nature conservation and timber production respectively. While these land tenures do provide a range of recreation opportunities, statute law specifies that recreation is secondary to their main functions. It is often inappropriate to rely on National Parks and State Forests to supply the regional and district scale open space required for recreation.

In addition, application of some concepts outlined in this document (eg Natural Landscape Features, Undeveloped Open Space) may require input from the state agencies that have relevant responsibilities.



1.2 Scope of Document

Sport and Recreation Queensland (SRQ) recognises open space (refer to Appendix A for definition) may have a wide range of uses, functions or values including*:

- outdoor recreation;
- sport;
- forestry; agricultural or pastoral production;
- nature conservation;
- maintaining and sustaining natural ecosystems and/or agricultural systems;
- protecting and/or managing significant environmental, cultural heritage and/or natural resource areas;
- managing water catchments;
- maintaining cultural practices;
- maintaining scenic quality and amenity; and
- tourism.

* not in order of importance

This document focuses on the value of open space for recreation and sport. This does not mean that recreation or sport is more important than any other land use - just that they deserve serious consideration in local government planning and land use decision making.

1.3 Purpose of Document

“Open Space for Recreation and Sport: Planning Principles” was developed in 1998 as a guide for local government planners preparing planning schemes, or components of planning schemes, such as those previously referred to as strategic plans and development control plans.

The principles explained in the 1998 document are general. However, they can easily be adapted to apply to the specific needs and characteristics of a local community. Definitions of key recreation concepts used by SRQ in this document are provided in Appendix A.

The implementation notes is a companion document to the previously published “Open Space for Recreation and Sport : Planning Principles”. The implementation notes have been developed to provide more specific guidance on how to implement the Planning Principles through planning schemes and non-scheme measures. The principles cover a range of land use planning issues relevant to providing for recreation and sport (eg providing a diverse range of recreation settings, regionally significant open space, recreation and sport in rural areas, facility location).

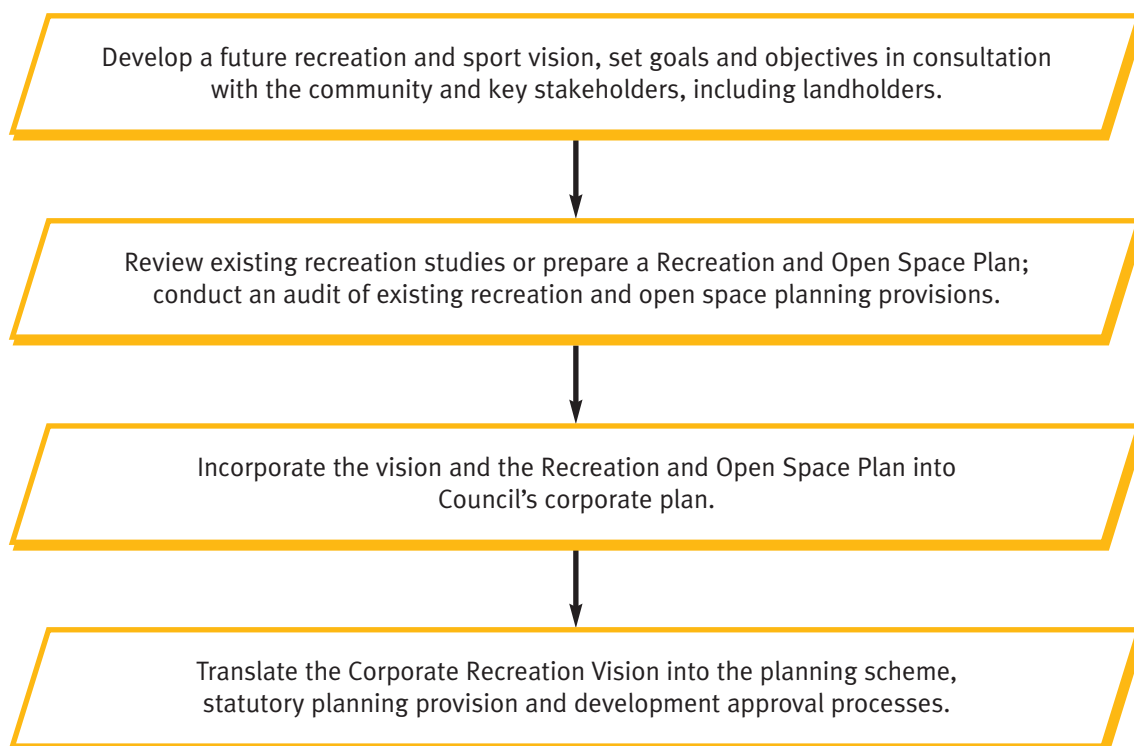
It is intended that local governments will use these two documents which have now been integrated into “Open Space for Sport and Recreation Planning Principles and Implementation Notes Final Report”, to develop their planning documents (including, but not confined to planning schemes) to incorporate desirable recreation and sport outcomes.

The integrated document which will be referred to as the Planning Principles (which includes case studies and graphics), will provide assistance to local governments in the planning scheme process and guide the development of recreation and open space plans. It may also inform planning policy content of regional frameworks for growth management.

The State Government has a significant role in the preparation of local government planning schemes. Under the *Integrated Planning Act (1997)*, planning schemes must coordinate and integrate state and regional interests. This includes the state's interests in recreation and sport. As such the planning scheme is an important mechanism for ensuring open space for recreation and sport is identified, protected and managed.

Recreation and/or open space plans have been developed by many local governments. Application of these principles will help integrate the recreation and open space plans with planning schemes and other statutory plans. The flow diagram Figure 1-1 illustrates how recreation and open space plans can be incorporated into local government planning.

Figure 1-1 - Incorporating Recreation Principles into Local Government Planning



1.4 Summary of Principles

Recreation Setting Diversity

The widest possible recreation diversity, through the provision of the greatest possible range of recreation settings, should be the guiding principle. An ideal network of outdoor recreation settings would include some lineal corridors connected to larger blocks across the entire range of landscape classes (ie from urban-developed-modern to natural-wild-remote) that are present in a particular biogeographic region.

The tenure and management arrangements applied to particular areas can be used to create more setting diversity and provide more recreational satisfaction. This can be achieved by segregating incompatible recreation activities and/or zoning some areas for specific types of activities.

Natural Landscape Features

Prominent natural landscape features should be identified, protected and managed for their recreational, nature conservation, historical, visual, educational and cultural heritage value.

The recreational value of a natural landscape feature can be reduced by uncontrolled and/or inappropriate recreational use. Consequently, recreation should be actively managed to minimise unacceptable impacts and ensure the quality of the resource is maintained. Some natural landscape features may have the specific statutory protection provided by tenures such as National Park or State Forest, or by zonings which restrict development.

Management Plans for areas of state land such as National Parks and State Forests can address potential issues such as conflicting usage of natural landscape areas and ensure their sustainability.

Sustainability of Recreation

In the context of recreation, sustainability means a given stock of resources (ie areas which are available for recreation and sport, recreation trail corridors, built recreation or sport facilities, recreation and sport service providers, etc) maintains its quality, quantity and diversity.

Ecologically sustainable recreation can be defined as the use of areas/settings for recreation purposes both:

- within the capacity of those areas/settings to sustain natural processes; and
- so that the benefit of the use to the present generation does not diminish the potential to meet the needs and aspirations of future generations.

The relationship between the natural environment and recreation activities is fundamental. The quality and diversity of recreation opportunities in the more natural open space environments is dependent on maintaining the natural attributes and diversity of these environments.

Undeveloped Open Space

The identification, protection and management of undeveloped open space will provide appropriate settings for outdoor recreation and education activities. Undeveloped open space may also provide scenic diversity, contribute to the conservation of habitats and corridors for native animals and plants, and maintain natural ecosystems that sustain life.

Recreation and Sport in Rural Areas

Public open space in rural areas can support tourism and protect key natural and historic features that define the identity of communities, promote social cohesion and meet recreation and sport needs.

As in cities and towns, public open space in rural areas needs to:

- be accessible from logical and convenient locations;
- provide for the likely movement pattern of people within the area (given the terrain and the location of facilities - shops, toilets, drinking water supplies, shade, formed trails, horse yards and cyclepaths);
- be cognisant of the location of natural and historic/cultural features; and
- be actively managed to maintain the quality of sites and facilities.

Open Space Fragmentation

Outdoor recreation is dependent on access to appropriate open space areas. Where possible, local governments should avoid fragmenting or isolating open space. This is intended to ensure the continuity of public enjoyment of open space and to ensure sufficient area and diversity of open space remains for future generations. Local government planning schemes can play a key role in preventing open space fragmentation.

Open space can be fragmented:

- through new residential, commercial or industrial development;
- when open space corridors are used as major transport and utility corridors; and
- when public access to open space is restricted or prevented where it was previously allowed.

Fragmentation of open space may have a negative impact on the scenic, nature conservation and water catchment values of open space and may reduce the diversity of local and regional recreational environments.

Cross-Boundary Strategic Planning

Coordinated planning across local governments is recommended to ensure:

- continuity of outdoor recreation networks across a region;
- continuity of cyclepaths and other non-motorised trail networks;
- improved user access through compatible policies and practices;
- inappropriate and incompatible land uses in adjoining local government areas are avoided (eg residential subdivision occurring in one local government area which is adjacent to an existing major sports facility in an adjoining local government area without appropriate buffering); and
- recreation management issues which cross local government boundaries and/or affect adjoining local governments are dealt with in a coordinated and complementary way.

Regionally Significant Open Space

To make wise planning decisions about some areas of open space, councils should consider the regional context. A regional context provides a framework in which to identify the significance of any particular open space area. Regionally significant open space is land which is regionally significant for any open space function. A regional system is a network of open space lands, which are special in some respect, and separately or collectively, are of regional significance.

Local and state governments should identify, protect and manage land of strategic importance for regional open space. The identification of such land should be accompanied by a statement of site values and significance to enable decisions to be made regarding the range of compatible land uses and appropriate development (if any) adjacent to or within particular regional open space areas.

Regional Recreation and Sport

Planning the appropriate location of regional recreation and sport facilities impacts on overall facility development, both within the council where the facility is to be located, and in bordering councils. Within logical groups of councils, planning should include the identification of:

- the hierarchy of facilities (ie local, district or regional);
- the type and location of existing facilities; and
- the location of unmet demand for specific types of facilities.

Open Space Standards

The application of a simple area per capita standard for open space will not necessarily ensure useful land for recreation and sport. An approach that assesses the community, its needs, the physical characteristics of the area in question for recreation and sport in terms of attributes such as area, length, terrain type, climate, proximity to transport, etc, the range of settings possible given the physical characteristics and considers the intended functions is supported. For example, places and functions can include: lineal corridors for cyclepaths, walkways or horse trails; riparian land to facilitate water based recreation; and linkages between settings.



Charging for Public Parks Infrastructure and Priority Infrastructure Plans

The *Integrated Planning Act 1997* (IPA) introduced a new approach to the provision and funding of infrastructure for development. The policy which underpins this approach is that basic or essential infrastructure that communities would reasonably expect to be available (eg. roads, water supply, electricity supply, etc) should be provided. This basic level of infrastructure includes the provision of open space for parkland and sporting fields.

Infrastructure charges as they relate to recreation and sport replace Section 5.6 of the repealed *Local Government (Planning and Environment) Act 1990*, which required developers to contribute towards the open space (parks) of the local government in which their development was located.

It is important to note that not all local governments will require, or choose to complete an Infrastructure Charges Schedule (ICS) for public recreation land. For example, those local governments experiencing low or no growth, and therefore with no pressure to approve developments, will probably choose not to complete an ICS. In these cases, a Recreation or Open Space Plan will assess whether the existing supply of land for recreation and sport purposes is sufficient to cater for the needs of the existing population. Refer to implementation notes Charging for Public Parks Infrastructure and Priority Infrastructure Plans.

If a local government is completing an ICS, a Recreation or Open Space Plan is an essential precursor as it should provide direction for future land, water and facility development for recreation and sport. Recreation or Open Space Plans are also beneficial in defining a 'desired standard of service', or performance criteria for recreation and sport land. Refer to implementation notes Open Space Standards/Planning Performance Criteria and case study 5.4 for more detail on performance criteria.

It is suggested that open space attributes considered suitable for parkland dedication be identified. Each local government needs to take account of the specific open space values in their area (eg water courses and their riparian corridors; pedestrian/cycling and wildlife corridors; linkages with existing open space areas; and flat areas suitable for active recreation and sport).

Multiple Uses of Open Space

Open space allocated for a particular non-recreation use, may still potentially provide recreation and sport opportunities compatible with the intended primary use. Conversely, open space allocated for recreation or sport purposes may also have value for other open space uses (eg nature conservation, water catchment management, or buffers).

As a general principle, the multiple use of open space is recommended where the proposed uses are safe and compatible. This will help to optimise the potential benefits that the community derives from its investment in public open space. It may also help reduce the amount of land required for public purposes.

Redevelopment/Recycling of Land for Recreation and Sport

Many rural towns have participated in the Main Street Program to revitalise and redevelop sections of the town and boost the economy. Shifts in the economic structure and advances in technology have impacted on the types of goods and services needed by today's society and changed the recreation and sport needs of many people.

In addition to these changes, there has been a trend towards development of regional commercial centres. However, this has sometimes occurred at the expense of the central business district, drawing people and the expenditure away from city hearts. Part of the urban renewal process has served to counteract this effect by planned redevelopment, which revitalises these areas. By locating recreation and sport facilities such as health and fitness centres in town centres, or redeveloping a town car park into a tennis centre, recreation and sport can contribute in a positive way to redevelopment.

Eco-Tourism and Outdoor Recreation

Tourism development and activity often targets attractive landscape features such as beaches, water holes, coral reefs, safe anchorages, white water sections of rivers, lookouts, etc. Typically, the settings surrounding these natural landscape features are changed to make them suitable for tourism. The result is that the physical, social and management character of sites or features that were relatively natural may be fundamentally changed. Consequently, the diversity of recreation settings and access to sites for outdoor recreation for local communities and for independent outdoor recreationists can be significantly reduced by tourism development.

The tourism “product” is often the opportunity to experience natural environments through outdoor recreation activities. For these types of outdoor recreation/tourism products to be sustainable (both ecologically and economically), they must not change the physical, social or management characteristics of the more natural recreation settings on which they depend.

Compatible Recreation Activities

To maximise community benefits from investment in land and facilities for recreation and sport:

- recreation and sport facilities and open space should be designed and managed for concurrent use by a group of compatible recreation and/or sport activities; and
- where concurrent use is not possible, facilities and land should be shared between recreation and/or sport activities which are separated in time.

In some situations, the principles of multiple use by compatible activities are well established. For example, designs for multiple use halls that can be used for basketball, volleyball, netball and other recreation and sport activities are well known. However, multiple use facilities (eg halls, sports centres, swimming pools) still need to be managed appropriately to ensure each user group has a sufficient amount of time for training and meetings; equitable use for major events and competitions; and adequate storage space. Therefore, while the activities may be sufficiently compatible to share space, if the facility is not managed properly, tensions between competing users may still exist.

Recreation and Adjacent Land Uses

The early assessment and identification of land for recreation and sport will assist local governments to minimise potential conflict between adjacent land uses. While recreation and sport facilities must be accessible to the community, councils also have to consider the potential impact of these facilities on the surrounding areas.

The identification of appropriate areas for these facilities during the town planning process, and subsequent protection or reservation of land in the planning scheme, will ensure adequate provision in compatible locations. Activities located away from environmentally sensitive areas and residential areas can minimise potential conflicts. Management mechanisms to minimise the impact of recreation and sporting facilities on adjacent areas of nature conservation, cultural heritage, water catchment or agricultural production value may be needed.

Facility Location

Land for recreation and sport should be allocated as an integral part of the town planning process, so essential infrastructure for recreation and sport is developed along with other essential services.



Recreation and sport facility location and distribution should be determined through specific facility needs studies to ensure adequate and appropriate facilities are located in areas of need. Local governments also should ensure sufficient land is available in these areas of identified need, through town planning mechanisms such as designation of land for community infrastructure or infrastructure charges.

Co-Location of Facilities

The co-location of a compatible mix of uses such as public space (ie in which to socialise), transit stop, low order retail, a variety of housing types and open space is encouraged to provide choice and flexibility over time. The mix of uses should be such that they endure as people's life cycle changes, rather than creating sectoral neighbourhoods which may decay over time.

An integrated approach to planning residential areas, community facilities, public open space, and retail and commercial services creates opportunities for greater social interaction, lowers the proportion of trips made by car and increases the viability of the facilities.

Non-Motorised Recreation Trail Network

In many communities, there is significant demand for opportunities for horse riding, bicycle riding and walking. Some of this demand focuses on exploring the landscape, some focuses on exercise and fitness, whilst some results from the challenge of covering distances at speed. Demand is also created by the use of cycling and walking as legitimate modes of transport, to get to and from shops, work or school.

For non-motorised recreation trails to function, it is essential local government planning schemes protect them from fragmentation and from being subsumed by other land uses or transport modes. However, please note that while unused rail corridors may be used as "rail trails", it should be recognised that this is an interim use only and the corridor could be used again in the future for transport purposes.

In urban areas, the open space system may be utilised to establish a network of recreational walking and cycling paths. These types of pathways are an integral part of the total open space system and can provide a safe means for connecting various sectors of the community, as well as connecting people to recreation opportunities.

Connectivity of Recreation Areas

The development and maintenance of connections between transport systems, centres of population and recreation and sport resources (eg open space, sports facilities) will help to create coherent and integrated communities both socially and physically. Communities with activity centres that draw people together, public open spaces for communal recreation and social activity, and recreation centres that provide a mix of compatible and complementary activities, provide focus and contribute to a sense of community.

Designing and maintaining connectivity of open space will maximise the value of the open space network for all uses/functions (eg nature conservation, water catchment, etc) not just recreation and sport. Providing the physical connections between areas ensures maximum use, enhances opportunities to participate, and encourages integration between neighbourhoods and the efficient use of community resources.

Waterways and Riparian Corridors

Waterways include rivers, creeks, estuaries, dams, lakes, waterholes, swamps and wetlands - all of which are usually open space features. They have very variable characteristics. Some waterways (eg. rivers and creeks) are long lineal features while others (eg. Lakes Eacham and Barrine on the Atherton Tableland) are isolated features in the landscape. Depending on the climate and terrain of an area, waterways can be permanently flowing streams or temporary swamps or permanent lakes, high volume, fast flowing water or dry streambeds, steep mountain creeks or estuaries, fresh water or salt water. Waterways may also be natural or built features of landscapes.

Riparian corridors (ie. the land adjacent to waterways that has been shaped by water) may include stream banks, lakeshores, flood plains and levee banks. These also have very variable features. In steep terrain, riparian corridors can be narrow (ie. less than 50 metres wide) while big rivers in flat areas may have flood plains that are many kilometres wide. They may, or may not be, open space features, depending on the degree of built development that has occurred. Land close to waterways is often significantly different in colour, form and texture (eg. the vegetation is taller and denser) from other areas. Like waterways themselves, riparian corridors may be natural or built features of landscapes.

From a recreation planning perspective, open space waterways and associated riparian lands present opportunities for lineal corridors for both water-based (eg. swimming, canoeing, kayaking, rowing, sailing, skiing, fishing from boats, etc) and land based (eg. walking, cycling, picnicking, camping, horse riding, fishing from the land, adventure play and exploration by young children, etc) recreation activities. These lineal recreation corridors may provide links between other open space features such as urban bushland, sports fields, non-riparian corridors (eg. stock routes and unformed roads) and municipal parks and gardens which might otherwise be isolated and, consequently, less attractive, accessible and useful for recreation.

Like other significant physical features of landscapes, waterways and riparian corridors should be identified, secured and protected in planning schemes and actively managed to integrate recreation with non-recreational values or potential uses.

Where open space networks associated with waterways and adjacent riparian lands have been fragmented by previous development or land use decisions, planning schemes should seek to reconstruct links along the waterways between otherwise unconnected open space areas.



2. Open Space Planning - An Integrated View

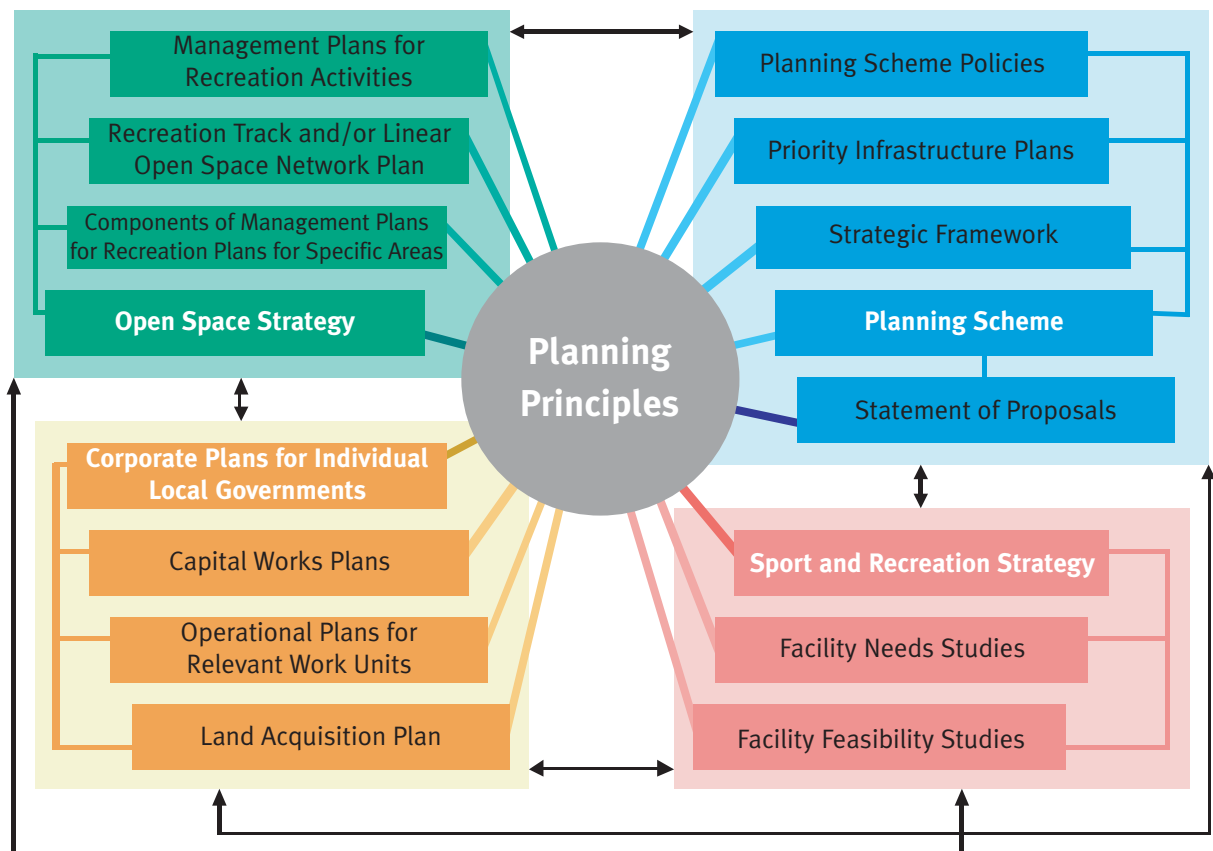
Purpose of the Planning Principles

The concepts outlined in Chapter 4 of this document are intended to inform the full range of planning activities that relate to recreation and sport in open space areas and are undertaken by local governments. These planning activities include:

- Planning schemes as required under the *Integrated Planning Act 1997*;
- Recreation and/or sport plans;
- Facilities needs studies;
- Facility feasibility studies;
- Recreation and sport activity development plans;
- Management plans for particular recreation and/or sport activities;
- The recreation or sport components of management plans for defined areas such as local or district precincts, parks and reserves;
- Plans for recreation track and linear open space networks;
- Plans to acquire land for recreation and/or sport;
- Designs for built infrastructure to support recreation and sport; and
- Capital works plans for recreation and sport facilities.

Figure 2-1: Range of planning activities informed by the Planning Principles

Note: Arrows indicate a potential inter-relationship between these types of plans/strategies



While this publication focuses on planning for recreation and sport in open space areas, it is recognised that any particular area of open space may have value for scenic amenity, agricultural protection, forestry, cultural heritage, nature conservation or water catchment protection as well as for recreation and sport. Accordingly, some types of plan are designed to integrate measures to protect and manage all open space values that are expressed in a particular area rather than just the recreation and sport values. Examples of these integrating plans include planning schemes, open space plans and management or master plans for specific open space areas.

Throughout this publication, the words “*Planning Scheme*” are used to refer to planning schemes as defined in sections 2.1.1 to 2.1.8 of the *Integrated Planning Act 1997* (IPA). Refer to Chapter 3: *Planning Scheme Implementation* for definitions and explanations of the components of planning schemes. When preparing planning schemes, the Planning Principles can be used in any of the following ways:

- As one source of information for the preparation of planning scheme maps or overlays relating to natural resources, landscape features, parks and sporting field provision;
- As one source of information for the preparation of Planning Scheme Policies that support planning scheme provisions dealing with the open space issues related to recreation and sport;
- As the primary information source for preparation of a Priority Infrastructure Plan for recreation and/or sport infrastructure; and
- As supporting information contained in the Explanatory Notes for the planning scheme.

The Framework for Planning for Recreation and Sport in Open Space

This Planning Principles document focuses on the land use planning aspects of open space for recreation and sport. This is based on the premise that each recreation and sport activity requires a place or space with specific attributes (eg. area, length, terrain, slope, surface, etc). Identifying, securing and making suitable places available are land use planning activities. After suitable places have been identified, secured and made available, planning for recreation and sport focuses on the types of built facilities and/or management inputs needed for each recreation or sport activity.

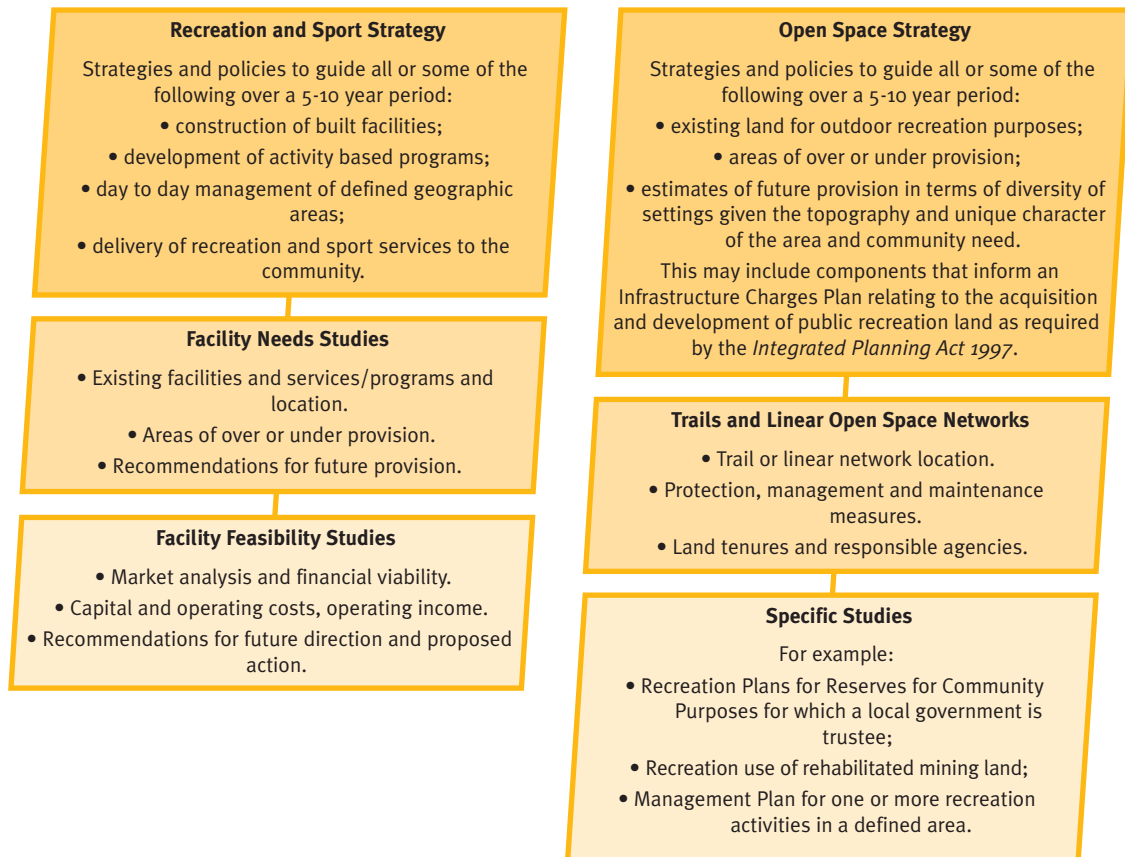
In general, the logical sequence of planning is to start with more conceptual, less detailed and less specific plans which then guide the development of more specific and detailed plans as shown in Figure 2-2 Framework of categories of recreation planning studies (over page).

Recreation planning like all other forms of planning takes place in a variety of contexts for a range of purposes. Some forms of planning are long-term and relatively general while others are short term and very detailed and specific. Long-term (5 to 10 year) plans focusing on recreation and sport in open space areas are called *Open Space Strategies* while those plans which focus on development and management of recreation and sport facilities, programs and associated services are referred to as *Recreation and Sport Strategies*. This terminology is used throughout this publication. Both Open Space Strategies and Recreation and Sport Strategies identify, coordinate and prioritise key aspects of providing recreation and sport products (such as land, built facilities, ancillary services, programs and policies) that meet community needs.

Open Space Strategies provide the strategic direction and framework for more detailed and shorter-term planning for recreation and sport in open space areas, as shown in Figure 2-2 (over page).



Figure 2-2: Framework of categories of recreation planning studies

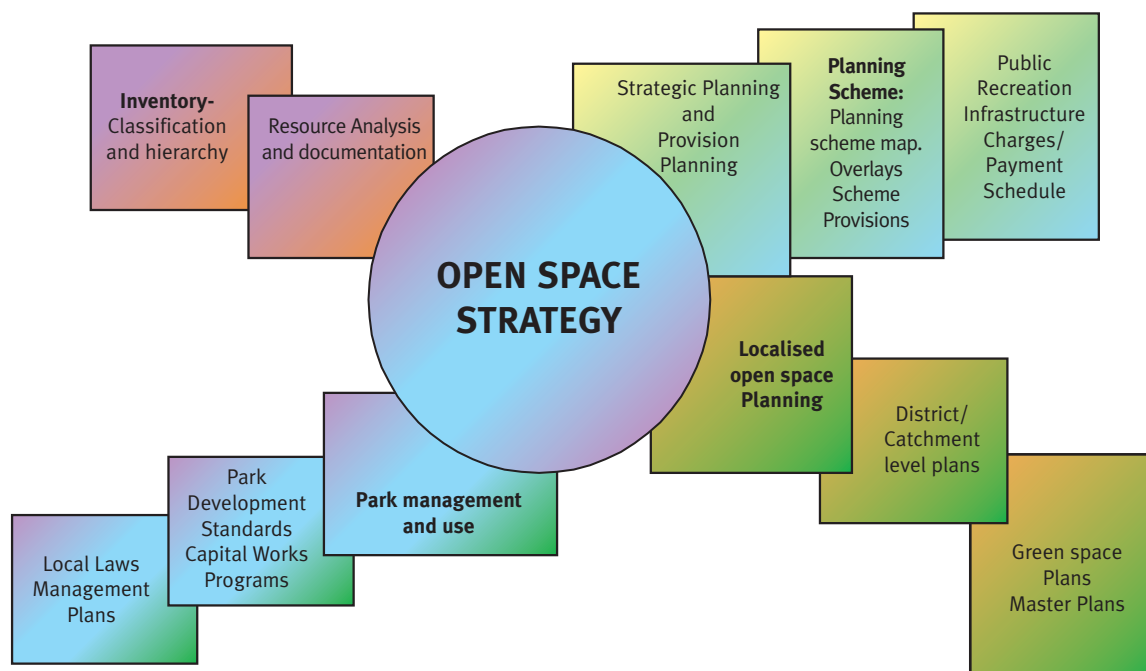


Open Space Strategies can provide the foundation for a range of planning and management activities related to recreation and sport in open space areas including:

- Open space planning at district or local levels;
- Green space planning for particular precincts or areas;
- Master planning for parks, reserves or other defined areas;
- Classification and inventory of public open space;
- Management and infrastructure development planning for particular recreation or sport activities;
- Development of local laws, management plans and day-to-day operational plans for recreational open space; and
- Corporate planning for councils and business planning for work units within councils.

The following diagram illustrates the various planning processes and products to which the Planning Principles for open space for recreation and sport may be applicable.

Figure 2-3 Overview of Integrated Open Space Planning



The preparation of an Open Space Strategy or Recreation and Sport Strategy for a local government area should include (but not be limited to) the following elements:

- Mapping of key landscape and environmental features (including waterway corridors).
- Mapping of major transport corridors, non-motorised corridors and open space links (eg. bikeways, trails, pedestrian paths).
- Mapping of existing and future population areas.
- Identification, classification and mapping of all open space areas that, most importantly, shows the distinction between areas specifically allocated to public recreation (eg. parks and sporting fields) and other open space elements (eg. waterways, buffers, drainage reserves, retention basins, wetlands, conservation areas etc).
- Identification and mapping of land, or potential precincts for facilities at local, district and regional levels.
- Identification of the range of outdoor recreation settings potentially available and of critical locations/sites that have high value and which consequently may require protection (eg. natural-wild recreation settings and long continuous open space corridors).
- Identification of proposed new parks and sporting fields at regional, local and district levels (local level provision can be guided by the standards of service/performance criteria or more detailed precinct/district plans).
- Analysis of the current supply of public recreation land and its adequacy given demand. This can involve current community satisfaction as well as objective assessment against Standards of Service/ Performance Criteria.

- Preparation of a new or revised Standard of Service or Planning Performance Criteria for Public Recreation Land (this should include land for facilities, not only open space). These guide provision levels for future communities as well as provide for an objective assessment of existing supply. In addition, these are required for preparation of an Infrastructure Charges Plan.
- Illustration of strategic land use planning issues and intents, such as protecting waterways from development or identifying a critical district sporting/active recreation area.
- Consideration of cultural and social values associated with open space (eg. Indigenous values).

An Open Space Strategy should have a long-term (ie. 5 to 10 years) planning view. However, the elements of an open space strategy which require regular review and updating include, Standards of Service and the achievement of strategic outcomes such as protection of corridors, acquisition of land for parks and timely provision of infrastructure for recreation.

Indigenous Issues and Open Space Planning

The recognition of Indigenous land values has prompted a greater need for planners, engineers, managers and officers to engage Indigenous stakeholders early in open space planning processes. Effective consultation with Indigenous groups is an integral part of community consultation. Consultation should recognise the cultural values associated with particular land areas as well as other management issues.

Public open space may be subject to native title claim. In addition, there may be cultural values associated with particular parcels of land. These values are part of a wider set of community values which impact on the planning process.

To ensure Indigenous land values are appropriately identified and considered, any consultation process should allow adequate time for information exchange, comprehensive understanding of the planning processes and consequences of decisions, opportunities for negotiation and development of shared solutions. To initiate the process of identifying the correct networks and contacts within a particular Indigenous community, a local Land Council or Indigenous advisory committee are appropriate starting points. Advice on consultation and negotiation with Indigenous people is available from the Department of Aboriginal and Torres Strait Islander Policy website at: <http://www.indigenous.qld.gov.au/publications/publicat.htm>.

Key Land Use Planning Outcomes from an Open Space Strategy and/or Recreation and Sport Strategy

Preparation of an Open Space or Recreation and Sport Strategy for a local government area should be undertaken with the resources available to the local government and the complexity of issues to be addressed in the plans in mind. However, for larger or rapid growth local governments, such strategies may not provide the specific detail required for completion of a Priority Infrastructure Plan. This level of detail is more effectively provided through detailed district or precinct level open space plans. For many rural or remote councils, Open Space Strategies and Recreation and Sport Strategies only need to provide the broad elements to inform the planning scheme and to identify key areas for current and future recreation and/or sport use.

As a general guide the following outcomes should be sought:

- Sufficient information to assist planners in identifying key elements to be incorporated into the planning scheme. *For example: contribute to the determination of the “Desired Environmental Outcomes” of the planning scheme through clarifying the role of open space in achieving “Ecologically Sustainable Development”.*

- Sufficient information to enable a long term plan for provision of additional recreation opportunities. *For example: integrating Open Space Strategy or Recreation and Sport Strategy objectives into the planning scheme to ensure land for future recreation, sport and outdoor recreation needs is not developed inappropriately or key sites are not affected by inappropriate development on adjacent land. Also - providing information as the basis of a works program in long term corporate planning. Consideration should be given to development of parks, recreation track networks, as well as facilities.*
- Sufficient detail to identify potential locations for parks, sporting fields and facilities of district or regional standard and scale.
- Sufficient information to prepare an Infrastructure Charges Schedule (or Payment Schedule) for Public Parks Infrastructure. (Preparation of a Priority Infrastructure Plan).
- Strategies for the future direction and development of outdoor recreation settings, sporting fields and facilities.
- Sufficient detail to allow decision making on levels of desired development in parks. *For example: application of “management classifications” to different parks to provide guidance on desirable levels or types of activity and development.*

Other Strategies for Integrated Open Space Planning

There are a number of other strategies which can help in providing an integrated approach to the planning, development and management of open space:

- Local area open space planning - preparing plans for a precinct or district area that identifies existing open space elements, outlines likely development and locates proposed parks and recreation facilities indicating their approximate size and proposed function (eg. sport, recreation, local, district etc).
- Master planning - preparing a plan for a district or higher level park that identifies strategic management and development issues. Master Plans are particularly effective in providing for community involvement in planning and developing a park with a diverse range of recreation opportunities and integration with other functions (such as conservation).
- Green space planning - these are plans often prepared for a suburb or group of suburbs and identify open space elements including parks and sporting fields. Through community involvement and strategic planning a Green Space Plan can determine new management objectives for existing open space areas and propose new areas for addition to the open space network. These plans often have a focus on connectivity of “green areas” and protection or re-establishment of habitat and parkland opportunities.



3. Planning Scheme Implementation

This section is provided as a guide only and should not be considered to replace advice from the Department of Local Government and Planning. There are several changes proposed in the Integrated Planning and Other Legislation Amendment Bill. Councils are advised to discuss plan making issues with the Department to ensure they have the latest advice.

There are a number of measures that can be used to implement the Planning Principles through the planning scheme.

However, the most efficient mechanism is the preparation of an open space strategy for the local government area. The strategy can then provide the background information to be incorporated into key components of the scheme¹.

The four key areas of implementation for open space for recreation and sport are:

1. Identifying key open space network elements (such as rivers, major natural features and parks and sporting fields of district or greater significance) on relevant planning scheme maps or overlays. These elements should also be considered during the overall plan making process particularly when making decisions on land use and growth areas.
2. Adoption of appropriate zones (land use categories) that protect recreational values on or adjacent to specific sites with recreational values.
3. Development of performance criteria for inclusion in the scheme measures to ensure acceptable outcomes.
4. Undertaking detailed planning for public recreation infrastructure as part of the local government's Priority Infrastructure Plan. This would include specifying "standards of service" for public parks infrastructure and preparation of an Infrastructure Charges Schedule to fund the acquisition and development of the planned public parks infrastructure.

The following section provides a range of suggestions for local governments to consider for inclusion in their planning scheme. These suggestions are not a list of requirements and are provided by way of example only.

Strategic Framework

The strategic framework is a non-statutory part of the scheme and can be used to provide background rationale and explanation of the scheme's strategic intentions for the local government area. However some councils may choose to include a statutory layer or element to the scheme which is "strategic". This layer could only apply to "Impact Assessable" development.

Possible Actions

1. The open space network can be defined broadly in the strategic framework.
2. Explanation of how any open space strategy has influenced the preparation of the scheme can aid in understanding of the scheme.
3. Explanation of the main components of open space, including linkages, could be included in the strategic framework.

¹ The Open Space Strategy is an excellent document to form part of the 'explanatory notes' to the planning scheme. It can be placed on public notification with the scheme and made readily available to the public. If a council wishes, this explanatory material can be deemed to be 'extrinsic material' under the Statutory Instruments Act, thereby giving it additional status particularly in legal matters.

4. The strategic framework should consider any open space which is controlled or managed by Commonwealth, State or local government agencies and which may have value for recreation and sport. However, some of these areas (eg National Parks, State Forests, Forest Reserves and Marine Parks) will have been declared for reasons other than recreation and sport. They may not be available for recreation or sport purposes. The relevant agency must be consulted regarding the recreation and sport values of the areas concerned.

If a council decides not to have any strategic layer then the above information should be included in the explanatory notes supporting the scheme.

Planning Scheme Maps

The planning scheme maps have a major function in identifying land for future growth or change, identifying the preferred settlement pattern and identifying key features which affect land use considerations. The planning scheme maps and overlays are critical in providing a clear intention in regard to provision of an open space network for the local government area.

1. All existing public open space should be identified and included in appropriate zones (land use categories).
2. Consideration should be given to how development can be managed for various types of open space to ensure that development on or adjacent to the site can protect the site's values. Options include different zones (eg. conservation, informal / local parks and sporting parks) as well as the use of precincts or categories within a single zone. Alternately an overlay can be used to make distinctions within a zone.
3. Any proposed new open space for recreation and sport could be identified to demonstrate future intent and included in the appropriate open space zone.²
4. All important elements of the open space network should be identified (such as rivers, creeks, open space linkages between major nodes).
5. All open space elements from State prepared regional planning (eg. the Regional Framework for Growth Management) should be identified. Reference to Regional Frameworks for Growth Management may assist coordinated outdoor recreation planning.
6. Any trail or path networks and critical future links could be identified.
7. Regional parks or sporting facilities should be identified and included in an appropriate zone.
8. Consider if there is any current or likely future demand for a multi-use site which accommodates "difficult to locate" sports such as motor sports (eg motocross, car racing, powerboat racing, jet skiing), gun/rifle sports, model aircraft. Any site would need to be located away from existing and potential future urban areas. Shared provision with an adjacent local government may be appropriate in some circumstances.
9. Privately owned open space of regional significance could be identified and a zone applied that does not unreasonably limit activity but protects values.
10. Sites or nodes within or adjacent to "destination" public open space sites, where tourism development is appropriate could be identified and included in a zone or land use category that indicates the desired intensity of development.
11. Natural areas / outdoor recreation destinations which are unlikely to support tourism due to environmental or cultural constraints should be identified.
12. Identification of district level community facility nodes to allow for integration of open space, recreation facilities, community facilities, services, retail and transport networks is desirable.
13. Land use planning can identify sites for district or larger recreation areas and ensure there is sufficient area for co-location and multiple use as well as growth.

² The implications of this action are that some land owners may seek compensation for "down zoning".



14. There should be consideration of adopting a specific land use (zone) for waterways that ensures sufficient corridor width is provided for riparian vegetation, recreation and path networks.
15. Planning for future major transport corridors could consider inclusion of additional corridor width to act as undeveloped open space areas providing a buffer and possible future recreational trail.
16. Potential locations for regional facilities could be identified jointly with adjacent local governments and consideration given to how access networks link with the adjacent local government communities. Any proposed sites should be included in the appropriate zone.
17. Proposed locations for difficult to locate sports (such as motor sports) should consider the potential for a shared approach with adjacent local governments or state land management agencies.
18. Extractive industry and other “candidate” sites which could be recycled for recreation and sport in response to urban growth and demand, could be identified as potential redevelopment areas.

Overlays

Overlays are a secondary set scheme provisions based on areas, places or sites having special attributes that affect the outcomes sought, as the attributes may:

- Make those areas, places or sites sensitive to the effects of development
 - Constrain development due to an environmental hazard or the value of a resource.
- (IPA Plan Making Guideline, Sept 2001, page 25)

Overlays do not usually cover the whole planning scheme area and will usually include a map element showing the land affected by the overlay, a range of assessment categories for land affected by the overlay, and assessment criteria for development affected by the overlay categories.

In many ways the use of one or more overlays to clearly define the desired open space network and to identify opportunities for appropriate development or constraints on development to protect the open space network would be the most efficient means of incorporating many of the principles into the scheme.

For example, preparing an overlay for an “Open Space And Public Recreation Facilities Plan” would allow a range of scheme provisions specific to the overlay to be prepared. These could focus on the key issues of:

- Ensuring that open space for recreation and sport is planned and provided to take advantage of existing and future open space networks, co-location and good linkage with residential areas.
- Identifying constraints and opportunities to ensure the proposed network is not adversely impacted by adjacent development and that opportunities for complementary development are promoted.
- Ensuring that development, future transport networks or other infrastructure development does not sever key open space linkages.

Overlays are included in the statutory element of a planning scheme where the information may alter the level of assessment required for specific sites. Where this is unlikely to be the case, the information may be better contained in the explanatory information supporting the planning scheme.

The following suggestions should be considered when preparing overlays.

1. If buffers³ can be mapped, then identification can be considered to prevent impacts on major recreation areas from adjacent land uses. They may not need to restrict all development rather, identify what development is suitable within the buffer.

³ Buffers are also one of the possible solutions which may be appropriate when considering development in particular areas and in such cases do not need to be mapped in the overlays and can be possible solutions to code and impact assessment. Preferred distances, performance criteria or methods for establishing a preferred buffer could be identified in Planning Scheme Policies.

2. An overlay could identify all areas in the natural -wild- remote end of the recreation setting spectrum (see Appendix A for explanation of setting types). Impacts from any development on these areas should be avoided and particular attention is drawn to planning of major transport or services corridors.
3. An open space overlay could identify recreation settings for major sites. Consideration of the importance of particular settings can be included in the performance criteria informing the codes applicable to the overlay.
4. Any significant landscape features (eg. vegetated hill slopes) which form critical parts of a recreation setting (eg. as a backdrop to a major picnic destination) could be identified and appropriate constraints on development identified.
5. Regional features identified or protected by state and regional planning (such as in the Regional Framework for Growth Management, prepared by the Department of Local Government and Planning) should be included in an appropriate overlay if there are constraints or opportunities applicable to areas within or adjacent to these features.
6. Landscape features of significance should be identified and their values documented to provide information for land use planning (eg. to avoid unsustainable impacts on features) and for use later in assessment of development that may impact on a feature.
7. Preparing an overlay for core elements of an open space strategy can allow an integrated view of the various network and linkage issues. For example:
 - Existing and planned built networks such as bikeways.
 - Existing and potential open space based linkages such as along waterways, overland flow paths, fire breaks or buffer zones.
 - Key linkage opportunities based on significant natural features such as foreshores and riverside corridors.
 - Key access and destination nodes such as local shopping/services centres, public transport stations/interchanges, schools, institutions, major recreational destinations.
 - Other pathway networks and potential recreation links.

Much of the above information can be included in the explanatory information supporting the scheme (such as an open space strategy document). Only those elements which have a direct constraint or opportunity affecting consideration of development should be included in an overlay.

8. An overlay could identify nature based recreation areas of high significance and detail development constraints that ensure that potential impacts (such as fire hazard, feral animals or weed species) from a particular development are minimised. An overlay may also identify areas of high conservation significance which have also been identified as suitable for accommodating some nature based recreation activities. An assessment of the potential impacts of these activities on the conservation values of the area is an essential pre-requisite. A management plan for the area should also be developed to ensure the nature based recreation activities can be sustainably managed.⁴

Scheme Provisions, Planning Scheme Policies and Codes

The scheme provisions focus on ensuring that consideration of development is appropriately guided. The provisions are those against which all Integrated Development Assessment System (IDAS) development applications under the scheme are assessed.

The planning scheme provisions identify the outcomes the scheme will achieve and establish the criteria against which development applications will be assessed in order to achieve these outcomes.

⁴ The scheme can only deal with land management issues in a limited way as conditions of approval at the time of development and only if those land management issues relate specifically to the development being proposed. Many of these issues may be better dealt within Local Laws.



The zones and overlay provisions (supported by the maps) provide the outcomes and criteria for development assessment on a geographical or locational basis. There will also be other provisions (usually in the form of general development codes) which specify the outcomes and criteria to assure the performance of specific types of land uses and development.

The following are suggestions only and consideration of these depends on the complexity of the planning scheme and the individual council's preferences for managing development.

1. Planning Scheme Policies can be prepared to ensure that appropriate information is requested when considering large residential developments or developments in particular zones or locations identified in an overlay. Information requested could include:
 - How the local open space network is being protected?
 - How the need for internal provision of parks and sporting fields is being considered?
 - How special features of landscape, environmental or cultural significance are being protected from impact?
2. Codes should identify in detail the planning outcome being sought and should be developed and applied to various development activity to provide performance criteria and other guidance as to acceptable outcomes or probable solutions in regard to:
 - Buffering of open space corridors or active recreation areas⁵ (eg. sports fields).
 - Setting diversity, location and design of parkland provided internal to any development.
 - Linking with open space or bikeway networks and protecting existing networks.
 - Protection of open space values.
 - Development on public open space.

Codes can be supported by Planning Scheme Policies which provide guidance on meeting design and performance criteria.

3. Assessment tables for land included in a recreation facility or public open space zone and identified in a recreation facilities overlay as a proposed regional facility, could include acceptable "complementary" development in or adjacent to regional facilities as a way of encouraging co-location of facilities and multiple uses of open space.
4. Where a site has been identified in related planning as a possible long term future parks site (eg. in 20 years time), then the site could be included in the appropriate zone⁶ and an additional layer of constraint identified through an overlay. Any proposed land uses or development, which may be appropriate interim activity, can be considered until acquisition becomes a reality. Forward planning for facilities can be 10, 20 or more years in advance and this should not restrict potential uses of the land unless they threaten the main value for which the land is to be acquired. Alternately the site could be included in the Priority Infrastructure Planning - Public Parks Infrastructure.
5. Development codes to prevent riparian and water quality impact could be prepared for specific developments associated with waterways (eg. corridors and adjacent lands identified in a natural resources or waterways overlay). These could provide guidance on acceptable solutions for any proposed multiple use as a result of residential or other specified development.
6. Assessment Tables relating to any waterways overlay or zones could identify those uses or activities which are impact assessable. Explanation of the waterways management objectives and the range of values to be protected within a waterway corridor can be incorporated into Planning Scheme Policy along with any guidance on acceptable solutions such as minimum corridor widths for creeks and rivers and identified preferences for riparian corridors (eg. naturally vegetated and providing a pathway).

⁵ There are few recommended buffer distances. Some issues such as noise can be calculated on a case basis, for others such as waterways each council will need to determine their own.

⁶ This may trigger a compensation claim.

7. Scheme provisions could identify the need for extractive and similar “invasive” industries to include remediation and post use planning.⁷ This may be done through code or a supporting policy which describes the type of information that may be required for impact assessment of such activities.
8. Provisions relating to any sporting facilities or recreational facilities overlay, could identify further constraints on surrounding land uses. This would protect amenity of the facility site (eg. a district sporting complex) by ensuring any proposed use considers the existing impacts of the facility (eg. noise and light) and does not propose incompatible land uses such as residential or inappropriate industrial use. Conversely provisions should also ensure that development of recreation facilities does not adversely impact on existing adjacent land uses.
9. Provisions for zones associated with public open space sport and recreation use should consider possible uses and developments and identify levels at which code and impact assessment are required. Consideration could be given to identifying limits on any building activity and requiring code assessment as well as limiting the overall area of any one site that can be developed (or long term leased) to avoid problems associated with incremental intensification of use. For example all sporting parks included in the “sporting facilities zone” may be limited to no more than 60% of site area to be leased or developed unless otherwise indicated by a Recreation Facilities overlay.
10. Paths and bikeways proposed to be constructed by developers should be reviewed by Council, for compliance with network planning, any bikeways strategies and design criteria, prior to any approval for the development or construction of the pathways. The scheme should include provisions requiring provision of bikeways and compliance with design or strategic plans. It is anticipated that design standards would be included in Planning Scheme Policies.

Priority Infrastructure Planning

Priority infrastructure planning is the mechanism for acquiring and developing the land for public parks infrastructure (including land and embellishments) required to cater for a future population’s recreation and sport needs based on the Standards of Service (see planning principle).

The *Integrated Planning Act* and the changes proposed in the Integrated Planning and Other Legislation Amendment Bill will allow councils to choose one of the following options for acquiring their public parks infrastructure for future populations.

1. **Infrastructure Charges Schedules** - Identifies the charges to be levied on development to fund the provision of the public parks infrastructure listed in the schedule and planned in the Priority Infrastructure Plan. Charges are generally issued in association with development approvals, but are not conditions of the approval and are not appealable. Charges must be equitable and transparently calculated on the basis of the proportion of the establishment cost of the public parks infrastructure that can reasonably be apportioned to premises. Charges schedules are required to state the estimated cost of the infrastructure and timing of its provision.
2. **Regulated Infrastructure Charge** - this option is available for all local governments but is primarily aimed at small and low growth local governments. The Regulated Infrastructure Charges will be set by the State and charges up to the maximum specified by the State can be adopted by local governments without the need to prepare an Infrastructure Charges Schedule. The Regulated Infrastructure Charge would be suitable in cases where:
 - the infrastructure network being charged for already exists;
 - limited growth or future development is anticipated and therefore unlikely to require significant expansion of the network;

⁷ There are overlaps with state agencies on some of these uses particularly the Environmental Protection Agency which will now have responsibility for environmental aspects of some mining approvals.



- there is little or no need for the rigour or complexity of a basic Infrastructure Charges Schedule and limited capacity to recover the cost of preparing the Schedule from future development; and
- there is limited capacity to prepare an Infrastructure Charges Schedule.

Both Infrastructure Charges Schedules and Regulated Infrastructure Charges can be used for embellishments, as well as acquiring land. Some examples of embellishments include playground equipment, picnic facilities, shelter sheds, toilet blocks, paths, parking, basic landscaping and training standard lighting for sporting fields.

Infrastructure Charges Schedules will need to be supported by detailed planning which identifies a proposed network of public parks infrastructure. The levels of provision proposed are supported by the Standards of Service which provide the equitable basis for calculation of any charge amount.

The Standards of Service and the Priority Infrastructure Plan options are discussed further in the planning principles.

Supporting information from an Open Space Strategy or Recreation Strategy (to provide rationale for the Standards of Service) needs to be included in the Priority Infrastructure Plan and thus in the scheme. The detailed strategy information could be included in the explanatory information which supports the scheme.

4. Planning and Implementing the Principles

4.1 Recreation Setting Diversity

The primary basis of diversity in open space is the nature or type of landscape/s present (see Figure 4-1).

The widest possible recreation diversity and quality, through the provision of the greatest possible range of recreation settings should be the guiding principle.

Figure 4-1 - Range of recreation settings



These concepts are based on the notion that different people undertake different recreation activities in different settings (or landscapes). They obtain various experiences and varying degrees of satisfaction from combinations of activities and settings (Clark and Stankey, 1979). Refer to Appendix A (Recreation Opportunities) for an example of one activity in different settings.

Given that such a wide range of tastes and preferences exists in the community, the provision of a wide range of recreation settings will ensure more people find a recreation setting to match their recreational preference.

An ideal network of outdoor recreation settings would include some lineal corridors connected to larger blocks across the entire range of landscape classes (ie from urban-developed-modern to natural-wild-remote) that are present in a particular biogeographic region.

Open space areas that can be used for recreation include:

- lineal corridors (eg riparian or stream bank areas, cyclepaths, unformed gazetted roads, stock routes, etc);
- traditional formal and informal urban parks and gardens (eg botanical gardens, sports fields, etc);
- town squares, malls and city centre parks; and
- depending on the statutory obligations and policy constraints, areas in various public or Crown land tenures (eg. State Forests, Camping and Water Reserves, Scenic Reserves, Sport and Recreation Reserves, dam precincts, water catchment areas, National Parks, Conservation Parks, etc).

The open space system should range from natural to developed landscapes or settings. Landscape or recreation setting diversity (see Figure 4-1) is the basis of the Recreation Opportunity Spectrum and related or derived recreation planning and management concepts such as Limits of Acceptable Change (LAC) and Visitor Activity Management Process (VAMP). References on these concepts are provided. Figure 4 - 2 over the page illustrates recreation setting diversity of parkland.

The Recreation Opportunity Spectrum is a recreation management concept that systematically describes recreation settings in terms of their biophysical, social and managerial attributes. Refer to Appendix A (Recreation Settings) for explanations of these terms.

Recreation quality does not depend on the Recreation Opportunity Spectrum/Landscape Classification. High or poor quality recreation experiences are equally possible in both developed-urban-modern settings and undeveloped-natural-wild-remote settings. Undeveloped-natural-wild-remote areas are not inherently better than developed-urban-modern areas. However, they are different.

The tenure and management arrangements applied to particular areas can be used to create more setting diversity and to provide more recreational satisfaction by segregating incompatible recreation activities and zoning some areas for specific types of activities.

Throughout Queensland and in Australia and overseas, setting diversity has been reduced by recreation succession. Recreation succession is the process by which the quality or condition of recreation settings deteriorate and/or change as a consequence of the impacts of recreational use and/or the actions of management. This is the main outdoor recreation issue, especially in high growth areas of the State where the demand for outdoor recreation is high.

The result of recreation succession is that particular recreation activities or particular styles of recreation activities are displaced from where they once occurred. This has less significance while suitable new sites are available, but for activities in some areas (eg trail bike riding near major urban centres), the supply of new sites is already exhausted. In effect, recreation opportunities (ie the opportunity to undertake a particular recreation activity in a particular recreation setting) are lost through recreation succession. Refer to Appendix A for more explanation.

4.2 Implementing Recreation Setting Diversity

Discussion of Planning and Implementation Issues

Recreation settings are the physical, managerial and socio-cultural features that define a particular open space area.

Recreation setting diversity needs to be considered at two levels:

- Regional/local government wide - to incorporate all landscape types in the public open space network. *Example: a range from developed sports fields in urban areas to naturally vegetated ridges and cliff lines.*
- Site planning - to plan public open space to provide a range of settings within a site. *Example: a district park with a wide vegetated riparian corridor on one boundary, a bush picnic area adjacent, a sport field on another boundary and playgrounds and informal open areas elsewhere.*

Figure 4-2 Recreation setting diversity



The key issues for recreation and sport are:

- Diversity can be provided in terms of both:
 - degree of naturalness; and
 - the biophysical attributes of a place (eg coastline or mountains, sand dunes or mangroves, rainforest, open forest or grassland; desert or swamp etc).
- Recreation settings are not static, many of the determining factors/ values are subject to change and modification.
- Changes to recreation setting diversity should be sensitive to long term changing community values and needs but resistant to short term trends, particularly those with irreversible consequences and those that require large areas of land or water.
- A good Geographic Information System (GIS) can map the areas and record the values associated with each site and help conceptualise recreation setting diversity. This can provide necessary detail and strategic context for planning scheme implementation.

Related Principles:

- Natural Landscape Features
- Regionally Significant Open Space
- Compatible Recreation Activities
- Undeveloped Open Space
- Recreation and Adjacent Land Use
- Open Space Standards/ Planning Performance Criteria.

Implementation Measures:

1. Change the mix of uses available on existing open space areas either by changing physical or managerial access restrictions. *Example: floodlighting a local park can provide for managed nocturnal use and increase the diversity of opportunities at the site level.*
2. Provide new opportunities in under used open space areas. *Example: walking trails through cemeteries.*
3. Consider how other public land tenures (eg. transport corridors, conservation, post-extractive industry) could be used for complementary recreation activities. *Example: a former quarry becomes a climbing site.*
4. Negotiate with other landowners for access or use of land on the basis of a lease or similar temporary tenure.
5. Prepare a master plan for a park area to guide development of more diversity within the park itself. *Example: a plan might identify a community need such as a BMX bike circuit and then look for locations within a park area where such a need could be met.*
6. Partnerships with commercial/ private enterprise providers or other agencies can expand the range of opportunities through allowing commercial elements to support outdoor recreation opportunities. *Example: management of a skatepark might be enhanced through a sales/hire/repair/training franchise that enhances site management through on site supervision.*
7. Encouraging commercial recreation proposals. *Example: Use planning processes to set policies and guidelines that make it easier for appropriate commercial recreation proposals to come forward for consideration. Similarly well written guidelines will discourage inappropriate commercial proposals.*

Case studies and examples relevant to this principle are:

Rafting Ground Reserve Master Plan
Local Area Open Space Plans
Ipswich Canoe Trail
Park Planning Performance Criteria

4.3 Natural Landscape Features

Prominent or significant natural landscape features are often the focus of recreation interests. These features can include mountain peaks, cave systems, gorges, coastlines, foreshores, remnant native vegetation, waterholes, wetlands and cliff lines.

Prominent natural landscape features should be identified, protected and managed for their recreational, nature conservation, historical, visual, educational and cultural heritage values.

Regional context should be considered in making wise planning decisions about prominent natural landscape features. A regional context provides a framework in which to identify the significance of local natural landscape features. For example, the Glasshouse Mountains north of Brisbane, are recognised as having national significance. Regional context for recreation can be evaluated by considering factors such as the:

- rarity of the feature;
- size or scale of the feature;
- access to the feature;
- significance for recreation, nature conservation, scenic amenity, education, history, and cultural heritage;
- types of outdoor recreation that could occur without reducing the underlying natural and cultural values; and
- number and places-of-origin of people who would participate in those activities.

State government departments often manage the land on which these features occur. The following example recommendations for escarpments and wetlands can generally be applied to other natural landscape features, to guide their use and management for recreation purposes.

- The recreation value of a natural landscape feature can be reduced by uncontrolled and/or inappropriate recreation use. Consequently, recreation should be actively managed to minimise unacceptable impacts and ensure the quality of the resource is maintained. Some natural landscape features may need the specific statutory protection provided by tenures such as National Park or State Forest, or by zonings which restrict development.
- Coordinated and collaborative planning by land owners to develop land management agreements for land to be used for recreation purposes.
- Land required for recreation access to inland watercourses, lakes, lagoons and tidal waters, should be publicly owned to ensure legal public access to these features. The options include:
 - reservation as some form of public land (Reserve for Community Purposes under the Land Act 1994 or Conservation Park under the Nature Conservation Act 1992);
 - easements; and
 - contractual arrangements with private landholders.
- An escarpment is sensitive to disturbances due to its steep slope and is usually of high scenic importance because of its dominant position in the landscape. Controlled access to minimise impact, but allowing compatible outdoor recreation pursuits enhances the diversity of recreation settings available to the community. Clear statements indicating what forms of development are acceptable also assist in the management and sustainability of these features.
- Wetlands are areas of swamp, shallow water or water logged land, vegetated by plants requiring moist soil or periodic flooding. Wetlands are important habitats for native plants and animals. Types of recreation activities, which can occur in wetland areas, include birdwatching, swimming, canoeing, hunting, nature study, fishing.

Management Plans developed by public land owners can address potential issues and conflicting usage of natural landscape areas and ensure their sustainability. Conflicting usage includes recreation usage of sensitive wetlands or coastline areas, inappropriate development on foreshores or escarpments. Clear statements indicating what forms of development are acceptable also assist in the management and sustainability of these features.

Management Plans for state lands (eg National Parks and State Forests) usually address recreation. Local government planning processes and outcomes should integrate with the management planning processes for state lands on which recreation opportunities are provided and/or recreation demands are focussed.

4.4 Implementing Natural Landscape Features

Discussion of Planning and Implementation Issues:

The key issues for recreation and sport are:

- Natural landscape features can contribute to the diversity of recreation opportunities through provision of settings and to the enhanced amenity of adjacent recreation areas. *Example: a forested hillslope in a national park may provide a scenic backdrop for a regional park.*
- Natural landscape features such as forested ridges and naturally vegetated watercourses can provide linkages between open space areas, corridors for path networks and buffers between land uses such as sporting fields and adjacent residential areas. *Example: a pathway or bikeway along a creek which links two parks.*
- The natural and cultural heritage values of landscape features can provide for education and recreation opportunities through interpretive activities both on and offsite. *Example: interpretative signage or curriculum-based school activities relating to a landscape feature (geology, history etc).*
- Protection of significant natural landscape features can constrain development in certain areas and therefore requires consideration in the preparation of the planning scheme to ensure management of development is guided appropriately. *Example: consideration of a development in the foreground of a significant regional lookout.*

Note: There are significant similarities, in implementation, with the planning principle Regionally Significant Open Space. Particular reference is made to the case study *Regional Landscape Values-Guidelines for their Protection*.

Related Principles:

- Recreation Setting Diversity
- Undeveloped Open Space
- Regionally Significant Open Space
- Waterways and Riparian Corridors
- Tourism and Outdoor Recreation.

Implementation Measures:

1. The most important issue for local government is the preparation of a well-mapped and documented study that identifies key features and their values. An Open Space Study may be the most effective mechanism.
2. For council owned or managed parkland, management plans should recognise and propose actions that protect important landscape features. *Example: a management plan for a park that recognises an avenue of historically important trees, and proposes actions to protect this feature within the overall management of the park.*

3. Agreements with private landowners could provide access to landscape features.
Example: an agreement for a recreational trail across grazing land to access a mountaintop.
4. Council can establish a Local Law/ Local Law Policy to manage organised or commercial recreation activity in council managed natural areas. *Example: a policy to manage climbing concessions on publicly-owned cliff faces.*

Case studies and examples relevant to this principle are:

Regional Landscape Values- Guidelines for their Protection
Local Area Open Space Plans

4.5 Sustainability of Recreation

In its most basic form, the principle of sustainable development means ensuring the quality and quantity of a resource is maintained for future use. The sustainable use concept applies to all human activities or land uses - including recreation. It also has economic, social and environmental/ecological dimensions which are interactive and interdependent.

For recreation, sustainability means a given stock of resources (eg areas which are available for recreation and sport, recreation trail corridors, built recreation or sport facilities, recreation and sport service providers, etc) maintains its quality, quantity and diversity.

For recreation dependent on access to open space land or water, sustainability has particular relevance. As the proportion of the landscape which is open space (refer to the definition in Appendix A) is reduced through urban and industrial expansion, the value or significance of the remaining/residual open space areas for all potential open space uses or functions increases. Typically, as the supply of the basic resource for open-space-dependent-recreation or sport (ie somewhere both suitable and accessible to do it) declines, the demands for these types of activities increase.

The long-term result is a loss of both recreation quality and diversity. This becomes more important when broadening the planning perspective from a local scale to a regional scale. If the range of recreation settings is restricted at a local scale, there is little hope of delivering a high quality and diverse regional network.

For outdoor recreation that generates a range of ecological, social and economic impacts, ecological sustainability is essential to maintain the quality, quantity and diversity of recreation settings.

Ecologically sustainable recreation can be defined as the use of areas/settings for recreation purposes both:

- within the capacity of those areas/settings to sustain natural processes; and
- so that the benefit of the use to the present generation does not diminish the potential to meet the needs and aspirations of future generations.

There are very few, if any, substitutes for the resource which supports outdoor recreation (ie open space). The demand for outdoor recreation is significant and outdoor recreation is a significant aspect of the quality of life in Queensland (1997 SEQ Outdoor Recreation Demand Study). Growing participation in outdoor recreation and the impacts of outdoor recreation activities have coincided with increasing interest in, and concern for, the natural environment and its long term protection.



The provision of a diverse range of recreation opportunities (ie specific combinations of recreation activities and settings) ensures the flexibility necessary to mitigate changes or disturbances brought about by social, technological or environmental changes (McIntyre, 1993). To maximise the quality and diversity of recreation choices available to a community, McIntyre identifies a need to maintain the integrity and character of recreation opportunity classes or settings. This is closely aligned with the concept of “sustainable use”. Sustainable recreation use of open space will become increasingly difficult as growth in activities dependent on open space continues.

There is no doubt that pursuing recreation and nature conservation goals concurrently at the same site can result in conflict. In some cases, recreational use can so severely degrade an area that the environment is damaged and the quality of the recreational setting itself is diminished (Cole, 1993, p.105). Consequently, the quality of recreation experiences can decrease (at least for some people).

However, while conflict between recreation and nature conservation objectives is possible, it is not unavoidable.

The relationship between the natural environment and recreation activities is fundamental. The quality and diversity of recreation opportunities in the more natural open space environments is dependent on sustaining the natural quality and diversity of these environments.

Therefore, careful management of the natural environment is a primary goal of outdoor recreation. If recreation occurs without regard for the environments or settings in which it occurs, irreversible damage may result. Recreation succession, consequent displacement of recreational users and loss of recreational choice results.

Sustainability in the recreation context relates to whether an activity can be undertaken without unmanageable impacts. An activity is unsustainable if, after applying normal management standards to the activity, unplanned impacts are detectable, persistent and increasing.

4.6 Implementing Sustainability of Recreation

Discussion of Planning and Implementation Issues:

The key issues for recreation and sport are:

- Protecting the recreation resource from adverse impacts created by overuse, inappropriate use or adjacent uses. *Examples: a creekbank at a popular swimming hole trampled by overuse; a quiet bushland park compromised by an adjacent noisy extractive industry.*
- Managing impacts on the recreation experience so that it is not diminished or modified to the extent it ceases to provide the same quality and type of experience. *Example: a wilderness experience compromised by crowding, littering, site trampling etc.*
- Considering the need to constrain use of areas, type of activities, timing of activities and infrastructure provided. *Example: closing four wheel drive tracks in North Queensland’s wet season.*
- Sustainability and the need to sometimes restrict access to a resource or opportunity can sometimes be at odds with principles of social equity. *Example: access to some remote wilderness sites is limited, by its very nature, to those who are able bodied and experienced enough.*

In many ways the provision of sustainable recreation opportunities is achieved more effectively through non-scheme measures. The planning scheme has a major function to plan land use and manage development. However it is management of activity and facility development that is crucial in ensuring sustainability of recreation.

Planning schemes should consider the compatibility of adjacent land uses and the possible use of buffering to separate incompatible uses. Use planning schemes to identify and avoid potential conflicts, and thus reduce the need for reactive management.

Related Principles:

- Multiple Uses of Open Space
- Waterways and Riparian Corridors
- Open Space Fragmentation/ Connectivity of Recreation Areas
- Recreation Setting Diversity
- Recreation and Adjacent Land Uses
- Open Space Standards/Performance Criteria.

Implementation Measures:

1. Management Plans for council owned or managed land can be prepared to manage uses, and levels of development. Management Plans can also identify the factors or issues needing consideration in any proposal for use or development.
2. The network of parks and sporting fields can be classified into a range of park types or management categories. Using local laws and general management policy a council can manage the uses appropriate to a particular type of park. *Example: a park classified as an urban bushland park could restrict activities that would be acceptable in a local recreation park, like walking the dog (see Figure 4-3 over the page).*
3. Monitoring is an important component of sustainability. Look for “early warning” indicators that identify problems before they become irreversible. *Example: profiling mountain bike tracks to gauge the extent of erosion and then using this information to forecast trends and identify remedial action.*

Case Studies and Examples relevant to this Principle:

Green Island
Park Planning Performance Criteria
Rafting Ground Reserve

4.7 Undeveloped Open Space

Undeveloped open space refers to natural, or near-natural land with no or little development (such as clearing of natural vegetation, roads, or residential, industrial, commercial, agricultural settlement). The identification, protection and management of natural or near natural landscape may:

- enhance the livability of an area;
- contribute to the conservation of biological diversity including the conservation of wildlife habitats and corridors, and the maintenance of natural fauna habitats and corridors, and the maintenance of natural ecosystems which sustain life;
- support agriculture by protecting ground water catchments, providing shelter belts for stock and preventing salination of soil downslope;
- provide water for human use;
- provide landscape/scenic diversity;
- provide appropriate settings for some outdoor recreation activities and outdoor education opportunities; and
- provide opportunities for protection of culturally significant sites.

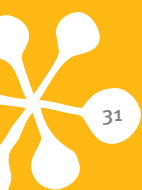


Figure 4-3 - Example of Activity Management for Different Park Types using a Matrix Approach

Possible Activities	Park Type						
	Local Park	Local sport	Local bush/creek	District Park	District sport/mixed use	District Bushland	District Bush-High conservation
Low impact (walking, nature appreciation)	P	P	P	P	P	P	C
Dogs on leash	Y	Y	Y	Y	Y	N	N
Dogs off leash	C	C	N	C	C	N	N
Picnic facilities	Y	Y	N	P	P	P	C, S
Playgrounds	P	Y	N	P	Y	N	N
Toilets	N	Y	N	P	P	Y	Y, S
Large groups	N	Y	N	P	P	Y	N
Informal active/ social sport	Y	P	N	P	P	N	N
Formal/organised sport and other activities	N	Y	N	Y	P	N	N
Youth facilities	Y	Y	N	P	Y	N	N
Bikepaths	Y	Y	Y	P	P	Y	N
Walking tracks/bush walks	Y	N	P	Y	Y	P	C
Camping	N	N	N	N	N	Y	C
Mountain Bikes	N	N	N	N	Y	C	N
Horse Trails	N	N	Y	C	N	C	N
Water based activity	S	S	S	S	S	S	N
Trail bikes	N	N	N	N	Y, C, S	C, S	N

P – Usually provided for as standard development of park

Y – Yes activity is allowable but may not be provided for

N – No activity is not normally provided for and may be prohibited

C – Controlled activity that may be allowed where special provisions are made

S – Subject to site specific factors such as water quality or other environmental factors.

4.8 Implementing Undeveloped Open Space

Discussion of Planning and Implementation Issues:

Undeveloped Open Space means land in a natural or near-natural state with little or no development.

The key issues for sport and recreation are:

- Undeveloped Open Space contributes to a diversity of landscapes and recreation settings, providing relief from urban development and often buffering between areas of recreational use and other development.
- Land set aside for future recreation and sporting use can also have a temporary role as undeveloped open space until increased demand requires development for recreational use. This can provide a cost effective way of managing land set aside for future recreation development as natural areas cost less to maintain than developed parks.

Undeveloped Open Space includes land that will always remain undeveloped such as natural landscape features and waterways, and land that is held for a future use such as development for a public park.

For open space held for future use, the land's intended use needs to be identified so that the community's expectations are realistic.

Undeveloped Open Space identified for future public recreation purposes should be managed to ensure its recreational values are not compromised by inappropriate development.

Related Principles:

- Natural Landscape Features
- Regionally Significant Open Space
- Waterways and Riparian Corridors.

Implementation Measures:

1. Larger areas of undeveloped open space in public control will require management plans and/or vegetation management plans, particularly in regard to risk issues such as fire, erosion, pests and inappropriate use or access. Management plans can also incorporate measures to reduce maintenance costs.
2. Agreements with private landowners can be used to protect parcels of undeveloped land with particular open space value. In some cases this may require return benefits *Example: reduced rates or special development agreements which can maintain the net yield from a site.*
3. Where land is kept for future recreation or sporting use managing the site as a "bush block" is more cost effective than developing it as park before demand has required the supply. However there are dangers inherent in community perception that the land will always remain as a "bush block". In some cases it may be desirable to ensure the community has a clear understanding of the future use of the land. *Example: signage indicating the site's status as future sporting fields.* The same issues apply where undeveloped open space has been kept for a future school, community facility or a future transport corridor.
4. Similarly to (3) Undeveloped Open Space may be cleared land and have informal use as a recreational space by the surrounding community. It is important the community is aware of the temporary nature of this use.
5. Unallocated State Land (USL) can also be a source of undeveloped open space or future parkland. It is important that if any USL is identified in open space planning (as future park) that the relevant state agency is advised of the council's desire.

Case studies and examples relevant to this principle are:

Local Area Open Space Plans
Park Planning Performance Criteria

4.9 Recreation and Sport in Rural Areas

The necessity and usefulness of identifying, developing and managing public open space in rural areas, especially in sparsely populated and/or remote rural areas, may seem questionable as there is an obvious abundance of open space.

Public open space in rural areas can support tourism and protect key natural and historic features that define the identity of communities, promote social cohesion and meet recreation and sport needs.

The critical questions concerning recreation and sport in rural open space are:

- is the open space legally accessible to residents and visitors?;
- does the available legally accessible open space meet the recreation and sport needs of the community and of visitors now and in the future?; and
- are key open space sites adequately managed and protected or are they deteriorating?

Like city dwellers, rural people also require access to public open space for recreation and sport, regardless of the size of their landholdings. This is because some recreation needs (for example long distance horse trails, places for people to meet informally, defined legal routes for people to explore the landscape and public access to swimming holes and large water storages, etc) cannot be met on individual properties. Public open space in rural areas may also have a potential role in regional recreation or tourism for urban residents.

Depending on the attributes and values of a particular area, public open space in rural areas could be designed and actively managed to:

- provide access to attractive landscape and/or historic features which define community identity such as scenic lookouts, cliffs, gorges, historic buildings, etc (refer to the section on Natural Landscape Features);
- provide non-motorised recreation corridors allowing exploration of the landscape by horse, bicycle or foot without the dangers associated with using formed roads with fast moving motorised traffic;
- contribute positively to economic activity and diversity by providing opportunities for tourism (eg caravan parks and camping areas can be linked by horse trails or walking tracks to swimming holes, fishing spots or scenic look outs); and
- provide for stock movement, water supply, water catchment management, protection of scenic features, grazing and nature conservation.

By adopting a multiple use approach where possible and practical, the benefits a rural community can gain from public open space are maximised.

As in cities and towns, public open space in rural areas needs to:

- be accessible from logical and convenient locations;
- provide for the likely movement pattern of people within the area (given the terrain, the location of facilities - shops, toilets, drinking water supplies, shade, formed trails, horse yards, cyclepaths, etc)
- be cognisant of the location of natural and historic/cultural features; and
- be actively managed to maintain the quality of sites and facilities.

Appropriately designed and actively managed public open space networks can provide a focus for community recreation and sport activities. They can also promote community identity and cohesiveness. Figure 4-4 over the page illustrates a range of activities which can occur in rural areas.

Public open space networks in rural areas can include:

- stock routes;
- camping and water reserves;
- sport and recreation reserves;
- scenic reserves;
- land from developer contributions;
- cemeteries;
- municipal parks and gardens;
- roadside rest areas
- public halls (providing facilities associated with open space usage);
- unformed roads;
- disused quarries;
- utility easements;
- weirs and dams;
- show grounds; and
- esplanades.

However, recreational use of public open space may impact upon neighbouring, surrounding or nearby rural enterprises. In some rural communities, this is a major issue. The public open space system should be designed and managed to alleviate, rather than increase these problems.

Public open space corridors that are separate from the road system, clearly identified and actively managed, can help reduce trespass on private property by people seeking access to significant historic or landscape features.

The identification, protection and active management of these corridors to ensure that connectivity, networks and diversity are maintained is recommended.

4.10 Implementing Recreation and Sport in Rural Areas

Discussion of Planning and Implementation Issues:

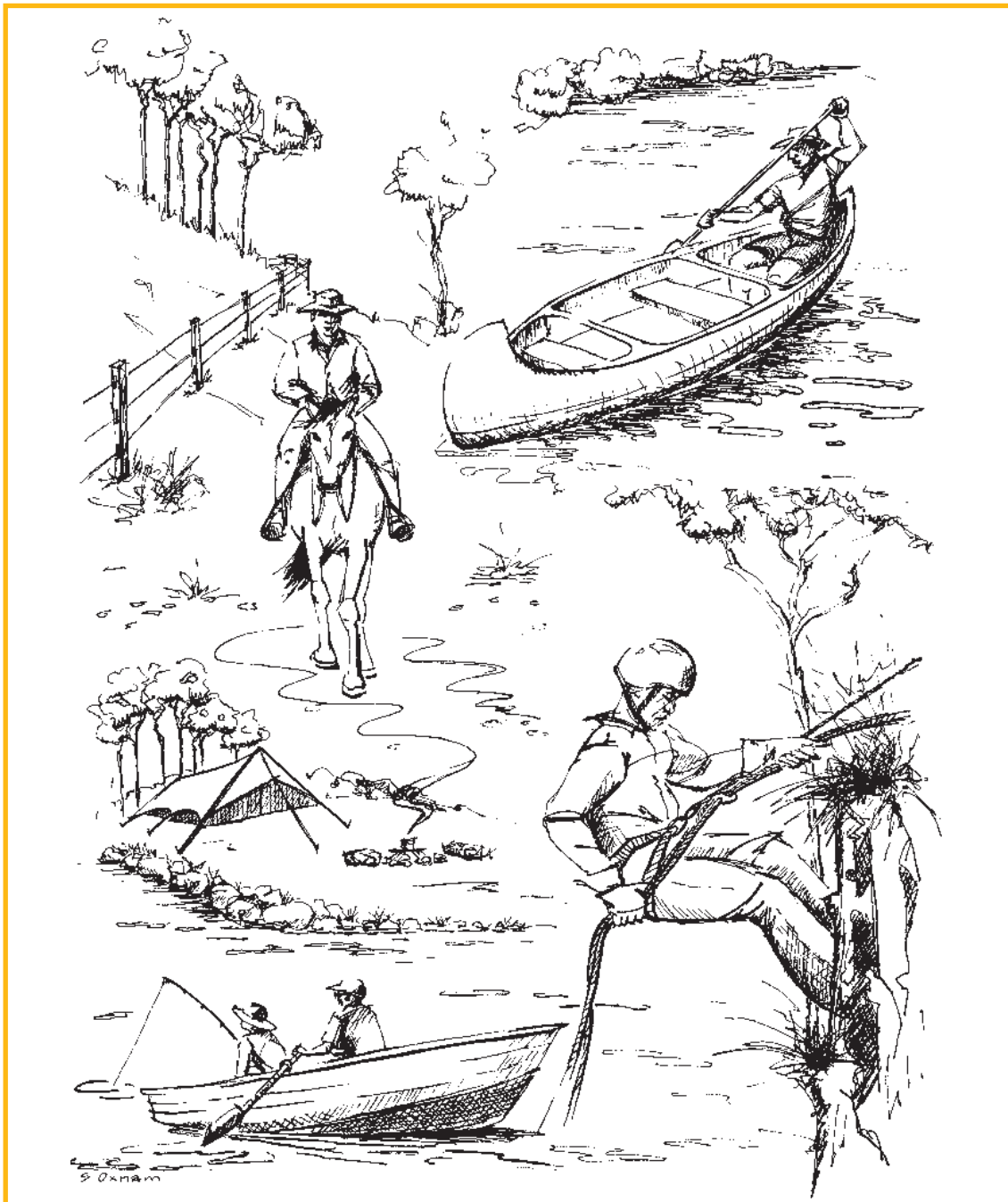
In many cases the most effective approach is multiple use of areas for formal activities that complement the other more informal (often landscape based) opportunities. In addition recreational preferences in rural and remote areas may require greater consideration of providing more space (or access to space) for a range of outdoor activities including equestrian sports, shooting sports, long distance trails, access to rivers and waterholes.

This planning principle is about the differences in planning and provision for rural areas, so most of the measures in other principles apply. In many ways planning schemes can have limited value as their focus is on land use planning and managing development. In many rural and remote local governments there is little development or change to existing land uses.

The limited resources available for preparation of open space or other strategic plans is acknowledged. However the inclusion of important open space elements (such as main sporting fields or river corridors) in a planning scheme can assist in developing a strategic approach to recreation and sport provision and protecting existing opportunities.



Figure 4-4 Recreation and sport in rural areas



In many cases demand for additional land will be low or non-existent, rather, meeting community needs is about redeveloping existing facilities and open spaces or improving existing resources. Negotiations and agreements for community access to existing resources and enhancement of public recreation land can ensure a diverse range of recreation opportunities are provided.

The key issues for recreation and sport are:

- Encouragement to provide open space at the “township” level and at local government wide/regional levels.
- The benefit in providing a focus area for the local community for social activity. *Example: a sports facility that also provides a venue for community fundraising activities or special events.*
- The use of parks and open space to enhance the visual appeal of towns. *Example: well maintained landscaped parks can enhance the main streets and provide an entry statement.*
- Councils should be careful that provision of new land or facilities does not place an unsustainable financial burden on the community.
- State agencies, rural and remote local governments and the community need to work in partnership and must support planning for multiple uses of open space. The partnership approach extends to regional planning and delivery of services. *Example: shared use with schools is often an efficient solution to demand for developed sporting fields or facilities.*
- Capital funding remains a significant issue and although there are state and federal grants programs to assist, the success of any applications usually relies on support from a strategic recreation plan or facilities plan.
- Some shires may have several small and remote communities. The travel distance to any other community is a significant barrier. A minimum level of provision, based on current and future population, community need and the range of opportunity currently available, should be sought for all communities.
- In some growth local governments there may be significant demand for “rural residential” land and population growth in rural areas adjacent to the main urban areas. Rural communities anticipate a similar level of provision as adjacent areas and their demand for sporting and recreational parks and facilities is as significant as it is for urban areas. It is incorrect to assume that because they have large properties they do not need (or want) access to local and district parks and sporting fields. Planning for recreation and sport necessitates the provision of public space for all communities.

Related Principles:

All of the other planning principles are relevant to Recreation and Sport in Rural Areas.

Implementation Measures:

1. In developing recreation and sport strategies, think creatively about the range of partnership approaches that might be available to deliver services. Possible partners could include Queensland government agencies (eg. Queensland Parks and Wildlife Service, local schools), adjoining local governments, local community and sporting groups, significant regional employers (eg. mining companies).
2. Planning for public open space should include areas of social and cultural significance (including local history) such as historic sites, memorials and sites of significance to aboriginal communities associated with the local government. Planning must consider the potential for recreational use to cause impacts on the significant site and how these impacts might be managed.



3. Good site and development planning applies equally in rural areas as it does in urban areas. Consideration of pedestrian and vehicle access, linkages with other community facilities, linkages with other open space (such as river beds), size and shape which allows multiple uses, need for horse or stock considerations, fire and other hazard management, provision of or proximity to appropriate facilities (eg. toilets).
4. At least one area of informal parkland developed for picnic, play and informal gatherings should be provided in a township. Design considerations should include the provision of shade and water as well as the needs of parents with young children (eg. road safety, toilets, visibility etc). A town park also has benefit for travellers. Providing the town park as an integral part of the “main street” means the town’s image is enhanced, travellers are accommodated and the local economy can benefit from traveller’s spending.
5. In some communities it will be appropriate to plan for and manage public open space areas with a strong significance for Indigenous culture. This may include requirements for restriction of public access at certain times or (for cultural reasons) to certain groups. No planning of a site or for management of a site should take place without the involvement of appropriate representatives of local Indigenous groups (or if possible Indigenous representative groups should be supported in preparing the plan).⁸
6. Locating and developing a site for difficult to locate sports (eg. shooting, motor sports) should consider the need for substantial buffering (in terms of distance and physical buffers for visual and noise purposes) of such areas and opportunities for sharing between local governments.

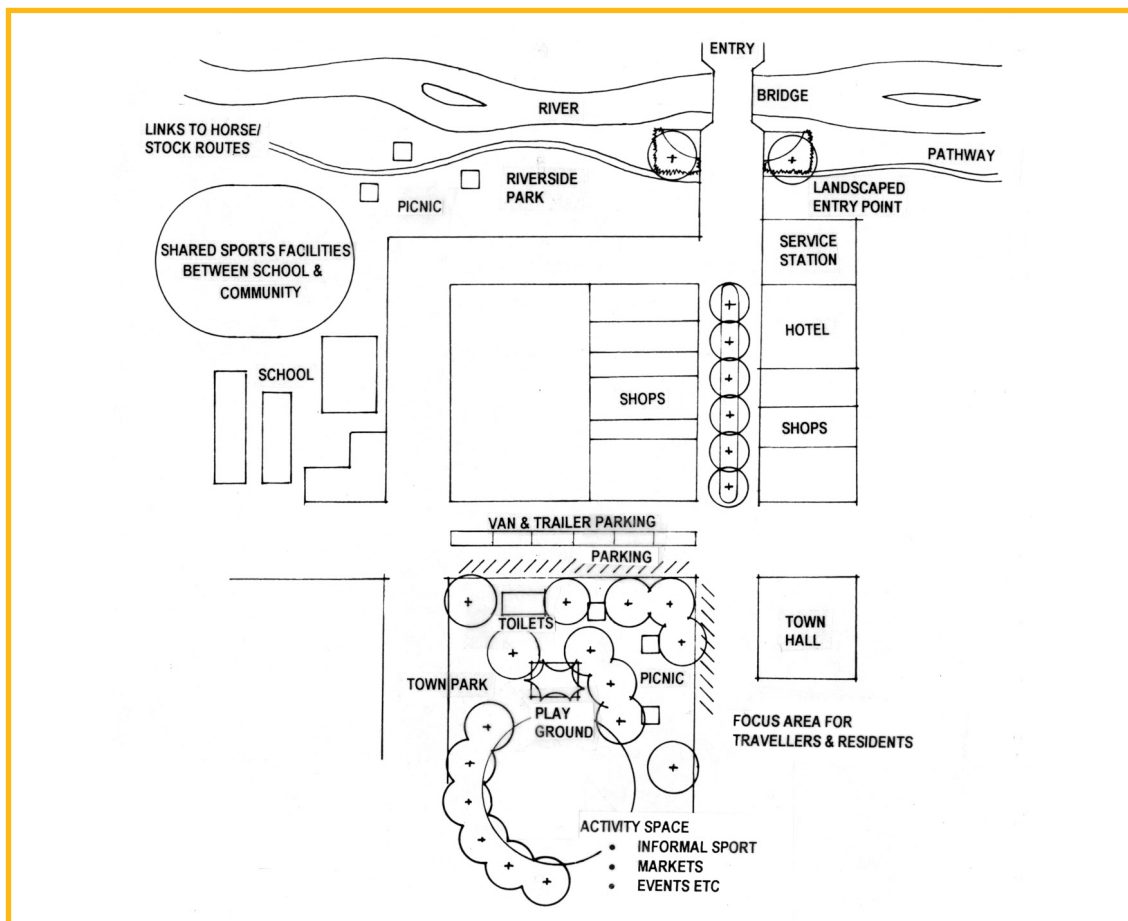
Case studies and examples relevant to this principle are:

Lake Belmore, Croydon Shire

Figure 4-5 over the page illustrates an example concept plan for open space in a rural town.

⁸ Native title and Indigenous issues are referred to in Chapter 2.

Figure 4-5 Example concept plan for parks and open space in a rural town⁹



The concept above demonstrates:

- Centrally located, multi-use area as a “town park”.
- Co-location of park and other facilities for residents and travellers such as shops, toilets, Playgrounds, community event space.
- Shared use facilities for sports serving community and school.
- Use of existing open space corridors (river) and pathway linkages to other trails (eg. stock routes, historical trails etc).
- Use of landscaped park and open space to enhance the town’s appearance.

⁹ Illustration courtesy of Siteplan Cairns



4.11 Open Space Fragmentation and Connectivity of Recreation Areas

4.11.1 Open Space Fragmentation

Outdoor recreation is dependent on access to appropriate open space areas. Where possible, fragmenting and/or isolating open space should be avoided to ensure the continuity of public enjoyment of existing open space, and to ensure sufficient area and diversity of open space remains for future generations. Local government planning schemes can play a key role in preventing open space fragmentation.

All open space functions (recreation, nature conservation, water catchment management, maintenance of scenic quality and diversity, protection and presentation of cultural and natural heritage) are compromised by reductions in the area and connectivity of open space.

Open space can be fragmented:

- through new residential, commercial or industrial development;
- when open space corridors are used as major transport and utility corridors; and
- when public access to open space is restricted or prevented where it was previously allowed.

Fragmentation may have a negative impact on the scenic, nature conservation and water catchment values of open space and may reduce the diversity of local and regional recreational environments.

In designing open space generally:

- larger areas are preferable to smaller areas, depending on the intended use;
- rounder, compact areas are preferable to elongated or irregular areas, except in cases where linear open space forms links between larger areas of open space;
- open space areas located close together are preferable to widely separated open space areas;
- linked open space areas are preferable to isolated open space areas; and
- in cities and towns, open space located near public transport systems, activity centres and residential areas is preferable to open space which is distant from all three.

However, there will be exceptions to these principles, such as preservation of smaller areas of significant landscape, which provide links to open space corridors.

The terms “alienation” and “fragmentation” are often used interchangeably. However, in the administration of state land in Queensland, “alienation” means the transfer of ownership from the State. Alienation occurs through the:

- sale or transfer of public land to private ownership; and
- granting of leases over public land allowing exclusive use for particular purposes.

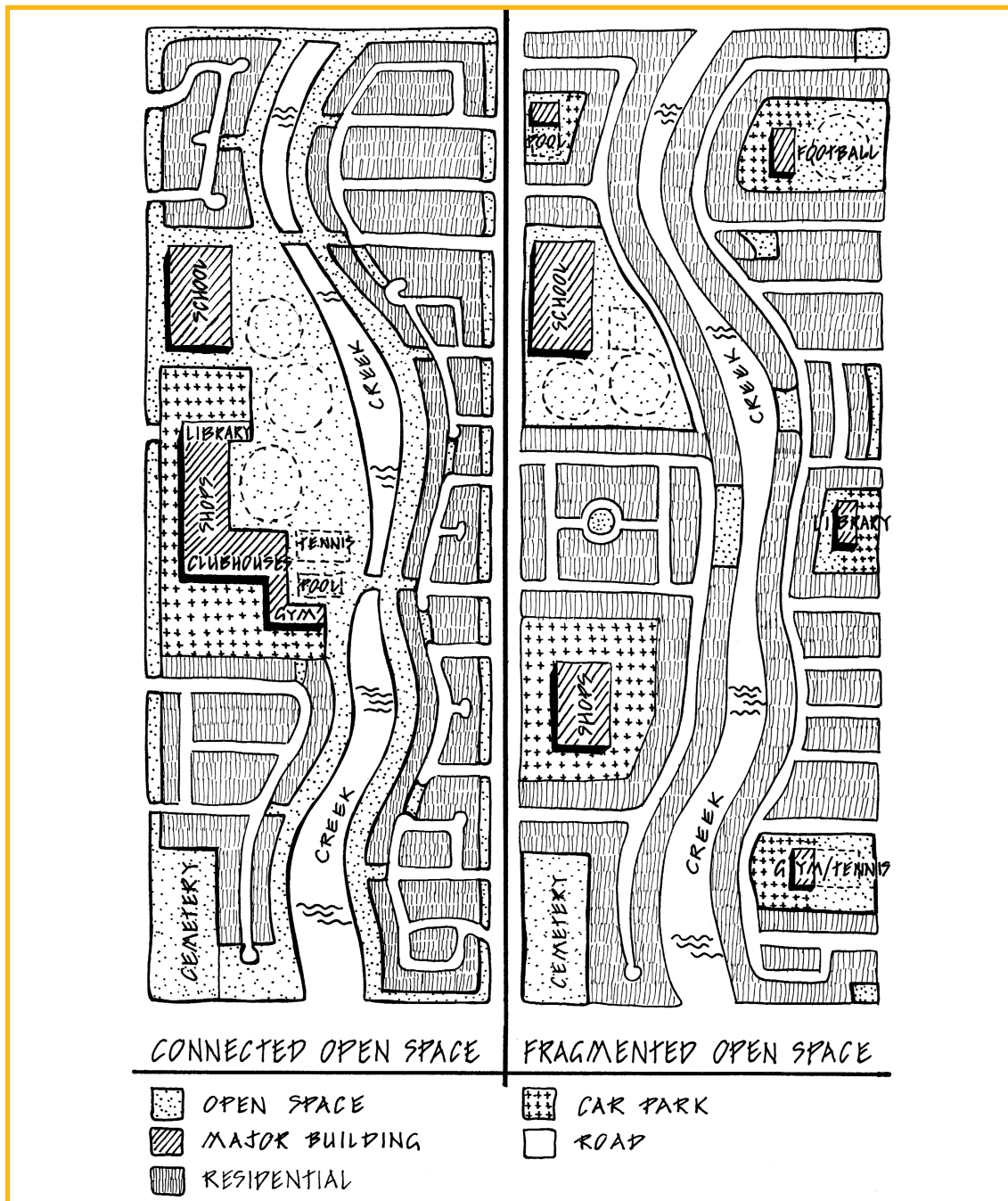
Decisions regarding the alienation of land and administration of transfer of ownership of state land are the responsibility of the Queensland Department of Natural Resources.

Figure 4-6 over the page illustrates connected and fragmented open space.

4.11.2 Connectivity of Recreation Areas

The development and maintenance of connections between transport systems, centres of population and recreation and sport resources (eg open space, sports facilities) helps to create coherent and integrated communities both socially and physically. Communities with activity centres that draw people together, public open spaces for communal recreation and social activity, and recreation centres that provide a mix of compatible and complementary activities, provide focus and contribute to a sense of community.

Figure 4-6 Open space fragmentation



Designing and maintaining connectivity of open space will maximise the value of the open space network for all uses/functions (eg nature conservation, water catchment, etc) not just recreation and sport. Providing the physical connections between areas ensures maximum utility, enhances opportunities to participate, and encourages integration between neighbourhoods and the efficient use of community resources.

The following methods can be used to establish and maintain connections between transport systems and ensure communities are interactive.

- Facilities and open space, which are served by public and private transport, and linked to residential areas by pedestrian paths and cyclepaths (refer to Non-Motorised Recreation Trail Network).
- Road systems which are designed to focus on major destinations, such as schools, shopping and community centres, recreational areas and transport interchanges.
- Open space corridors, which are for multiple uses, including non-motorised recreation opportunities such as walking, cycling and horse riding.

Other relevant information and discussion of issues relating to connectivity are dealt with in the sections:

- Open Space Fragmentation
- Non-Motorised Recreation Trail Network
- Co-Location of Facilities

4.12 Implementing Open Space Fragmentation and Connectivity of Recreation Areas

Discussion of Planning and Implementation Issues:

Small fragmented areas of open space are usually more costly to maintain, susceptible to degradation, and limited in their ability to respond to changing community needs or provide diverse recreation opportunities.

Planning for parks of sufficient size along with a well connected open space network which links open space areas and community access networks, will ensure more efficient management and a more diverse and accessible range of recreation opportunities.

The benefits of minimising fragmentation and maintaining connectivity include:

- Provision of larger more sustainable sport and recreation areas.
- Physical open space linkages provide opportunities for informal and formal access networks as well as ecological linkages to ensure sustainability of natural vegetation.
- Connecting open space areas to local access networks (such as bikeways) ensures connectivity with residential areas and enhances the diversity and accessibility of recreation options.

Implementation through the planning scheme is mainly done through three broad areas of action:

1. Identifying strategic links and open space network elements in the strategic framework, overlays and other land use planning.
2. Developing scheme provisions that ensure new public recreation areas are of sufficient size and quality and are connected to the open space network and to local access networks.
3. Where possible making sure development does not fragment existing open space and opportunities for building on small fragments or increasing connectivity are encouraged.

Related Principles:

- Sustainability of Recreation
- Regionally Significant Open Space
- Non-Motorised Trail Networks
- Waterways and Riparian Corridors
- Facility Location- Co-Location of Facilities
- Cross Boundary Planning.

Implementation Measures:

1. Ensure the preparation of any bikeways or trails strategy provides linkages between parks and residential nodes.
2. Severed corridors/ linkages can be reclaimed through negotiated easements, replanting vegetation, constructing formal paths.
3. Provide support for public access or natural area recreation corridors through private land by encouraging gazettal of easements that include public access as well as other needs. *Example: negotiate a footpath or bikeway in conjunction with sewerage or water easements.*
4. Where small land parcels are the only park, be realistic in the level of development for the park so that it is not “choked” or use is not too intense for surrounding residents. *Example: it would probably be inappropriate to provide community barbecue facilities in a “pocket handkerchief” park adjacent to residential areas.*
5. In some cases it may be appropriate to “rationalise” the open space estate and dispose of small unusable fragments. Any proceeds generated could be used for acquisition of new sites to improve connectivity.

Case studies and examples relevant to this principle are:

Local Area Open Space Plans

4.13 Cross Boundary Strategic Planning

Coordinated planning across local governments is recommended to ensure:

- continuity of outdoor recreation networks across a region;
- continuity of cyclepaths and other non-motorised trail networks;
- improved user access through compatible policies and practices;
- inappropriate and incompatible land uses in adjoining local government areas are avoided. For example, residential subdivision occurring in one council adjacent to another council’s existing major sports facility, without appropriate buffering; and
- unplanned/unintended duplication of recreation and sport facilities, developments and opportunities are minimised;
- recreation and sport development and management resources are shared;
- unplanned/unintended/destructive competition is avoided;
- maximum possible community benefit and opportunities are produced from the investment in cooperative planning, management and protection of indoor and outdoor recreation settings; and
- recreation management issues which cross local government boundaries and/or affect adjoining local government areas (eg control of off-road vehicles and development of long distance walking trails) are dealt with in a coordinated and complementary way.

Coordinated planning may also promote a cooperative or complementary approach to management of open space.



4.14 Implementing Cross Boundary Strategic Planning

Discussion of Planning and Implementation Issues:

Cross Boundary Strategic Planning refers to the physical and organisational boundaries that can constrain effective planning.

This principle encourages councils to think beyond their local government boundaries and for all agencies to think beyond their organisational jurisdictions. There are many advantages:

- Continuity of access to or connection of open space networks across boundaries is maintained or enhanced. *Example: a horse trail across several local government areas.*
- Shared resourcing of regional facilities or difficult to locate activities and minimising of unnecessary duplication. *Examples: a regional perspective is often best in deciding locations for facilities such as rifle ranges and motor sport activities. The cooperation of several councils may be needed for some major sports venues eg. indoor venues, watersport complexes, to be viable.*
- Reduced incidence of incompatible land uses across boundaries.
- Provision of a better diversity of opportunities and settings.
- More rigour when considering the feasibility of commercially sensitive recreation facilities such as pools or indoor sports centres. *Example: realistic feasibility assessment will establish that the catchment for commercially sensitive facilities will often transcend local government boundaries, particularly in regional and rural areas.*
- Sometimes good planning can be stifled by old “parochial” attitudes to boundaries. *Example: “going it alone” often leaves ratepayers a legacy of unviable, inadequate or poorly maintained facilities - facilities closed because of high operational costs relative to use, councils unable to meet replacement cost of equipment, a swimming pool that is too small for future community needs.*
- Working with government agencies and community groups can often lead to creative outcomes that “blur” organisational boundaries and provide real benefits to the community. *Examples: several agencies working together to create a visitor information/community centre where an overlap of compatible uses enhances viability. Councils working in partnership with national park managers to develop and maintain day use/camping areas. Several agencies as co-signatories on grant and capital work funding applications for regional facilities.*

Related Principles:

- Recreation Setting Diversity
- Natural Landscape Features
- Regional Recreation and Sport
- Facility Location/ Co-location of Facilities.

Implementation Measures:

1. Regional inter council forums and planning groups can be established to discuss proposals for new facilities, cross boundary issues and to guide regional level planning. The forum could also be used to develop agreements between councils for shared provision of facilities. This is best achieved at both decision-maker (ie. councillors) and implementation (ie. sport and recreation officers, planners etc) level.
2. Adjoining councils are consulted in the consideration of major sport and recreation development proposals.
3. Preparation of regional strategies for recreation facilities, open space and access networks.
4. Work with the other councils to establish a common system of open space classification, which will assist cross boundary planning.

Case studies and examples relevant to this principle are:

Wet Tropics Walking Track Strategy

4.15 Regionally Significant Open Space

To make wise planning decisions about some areas of open space, the regional context should be considered. A regional context provides a framework in which to identify the significance of local and district open space. Regionally significant open space is land that is regionally significant for any open space function. A regional system is a network of open space lands, which are special in some respect, and separately or collectively, are of regional significance.

Regional open space may serve several functions:

- provide opportunities for outdoor recreation activities;
- provide opportunities for recreation and sport activities;
- shape the form and location of urban development within a regional framework;
- buffer to separate incompatible land uses;
- protect the environment, culture, heritage and natural corridors linking habitats;
- contribute to scenic quality, environmental amenity, livability and cultural enhancement;
- protect productive agricultural and pastoral landscapes/land uses from displacement by urban expansion or industrial development;
- protect and manage the natural systems or processes which maintain both agricultural productivity and biological diversity; and
- preserve land for future recreation and sport demand.

Local and state governments should identify, protect and manage land of strategic importance for regional open space. The identification of such land should be accompanied by a statement of site values and significance to enable decisions to be made regarding the range of compatible land uses and appropriate development (if any) adjacent to or within particular regional open space areas.

For protection, land for a regional open space system should be shown on local government planning scheme maps and supported by strategy statements, objectives and implementation statements. The relationship between local open space and regional open space must also be considered, including the connections between these areas.

The development of a regional open space system also has inherent cross-boundary issues that are dealt with under Cross-Boundary Strategic Planning.

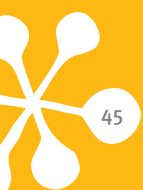
4.16 Implementing Regionally Significant Open Space

Discussion of Planning and Implementation Issues:

Regionally Significant Open Space may include river and waterway corridors, mountains and ridges, large natural areas or state managed recreation areas, foreshores, bays, islands and culturally significant sites (eg. historic sites).

It is open space land and water that is important to a defined region in the state (eg. North Western Queensland) or a group of councils. The nature of significance is also such that any area significant at a particular level (eg. state) is also significant at levels below that. In the same way land or water that is nationally or internationally significant is also then regionally significant.

Regional significance of an area is established by the values of the site. In some cases a particular site is significant because it is part of a network or system or is associated with a significant feature.



For example significance can arise from:

- Being significant as a sport or recreation resource to more than one council
- Particular habitat type that is rare locally or regionally (or at greater levels)
- Presence of a site of historic or cultural importance
- Being part of an important regional network such as a water catchment or river system
- A noteworthy geographic feature which has a range of purposes such as recreation, tourism and conservation
- Having particular scenic significance or importance to the regional landscape.

The key issues for recreation and sport provision are:

- Regional level planning and provision for nature based recreation such as State Forest and National Park sites.
- Protection of natural and cultural features of regional significance can contribute to the diversity of settings and recreation opportunities available. However when sites are identified as being of regional significance after they have been historically popular destinations for local residents, tensions can arise when management is required to limit frequency of use or restrict particular activities. This can lead to local communities feeling “disenfranchised” in the cause of some intangible objective. *Example: a National Park is declared on a site traditionally popular with motor bike riders - this activity is then prohibited because it is incompatible with conservation values.*
- Management of regionally significant open space often involves state and national agencies which may, or may not, have a regional presence.
- Local governments may often manage land adjacent to regional open space. Management needs to consider compatibility with the regional site. This may constrain activities, which would otherwise be suitable on the local government land. *Example: old farmland adjacent to a regionally significant National Park would not be suitable for a motor sports facility because the noise impact would be unacceptable, even though the location and land form are suitable.*

Particular reference is made to the publication Regional Landscape Values- Guidelines for their Protection, available from the Department of Natural Resources and Mines. The report is discussed in the case studies and examples.

The planning scheme needs to identify regionally significant sites within or adjacent to the scheme area and to apply appropriate measures to protect those significant sites from inappropriate use within or adjacent to the site.

Related Principles:

- Cross Boundary Strategic Planning
- Recreation Setting Diversity
- Regional Recreation and Sport
- Natural Landscape Features.

Other Implementation Measures:

1. For council owned or managed land, management plans can be prepared to protect features or values while managing recreational use.
2. For private land, negotiation with the landowner can be undertaken to develop a co-operative management plan or voluntary agreement that protects the owners’ rights as well as establish a framework for protection of the site.
3. For acquisition of key sites councils could establish an acquisition fund with revenue from a rates based levy, general revenue, trust based contributions etc.

4. Where regionally significant open space is managed by state or national agencies, councils should become involved in their planning processes (and vice versa), and establish effective operational liaison. *Example: a council ensuring local recreation needs are considered in a Management Plan for a State Forest or National Park.*

Case studies and references relevant to this principle are:

Lake Belmore
Regional Landscape Values- Guidelines for their Protection, a Department of Natural Resources report
Wet Tropics Walking Track Strategy
Willowbank Raceway

Figure 4-7 over the page illustrates regionally significant open space in the Far North region.

4.17 Regional Recreation and Sport

The previous section discussed regionally significant open space and its functions. One function is the provision of recreation and sport opportunities at a regional level. The sports industry has a hierarchy of facility standards from local to international. This hierarchy is largely based on a sport's requirements for training or an event at each of these levels.

The location of regional recreation and sport facilities has a significant impact on local government land use planning. These facilities attract users from more than one local government area and require a significant amount of land for the facility itself, as well as car parking, landscaping and any necessary buffering between adjacent land uses. Local governments are partially responsible for providing regional recreation and sport facilities and therefore should allocate sufficient land for these facilities during the town planning process.

Planning the appropriate location of facilities impacts on overall facility development, both within the council where the facility is to be located, and in bordering councils. Planning should include the identification of the hierarchy of facilities and their location within all affected councils.

While regional facilities may be single purpose (eg tennis centre), the agglomeration of different sports facilities in a regional sports park encourages participation across sports and increases the viability of all facilities at the site. For regional sports parks of this nature to be successful, it is necessary to plan for a compatible mix of facilities, and introduce a coordinated management agreement to minimise conflicts that may occur when sharing facilities.

Regional facility planning will help to:

- avoid destructive competition;
- minimise duplication of costly facilities;
- maximise access to the community;
- effectively use resources and facilities; and
- increase the viability of facilities

Figure 4-8 on page 49 shows a regional sport facility.

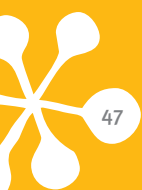


Figure 4-7 Example of regional planning and identification of regionally significant open space

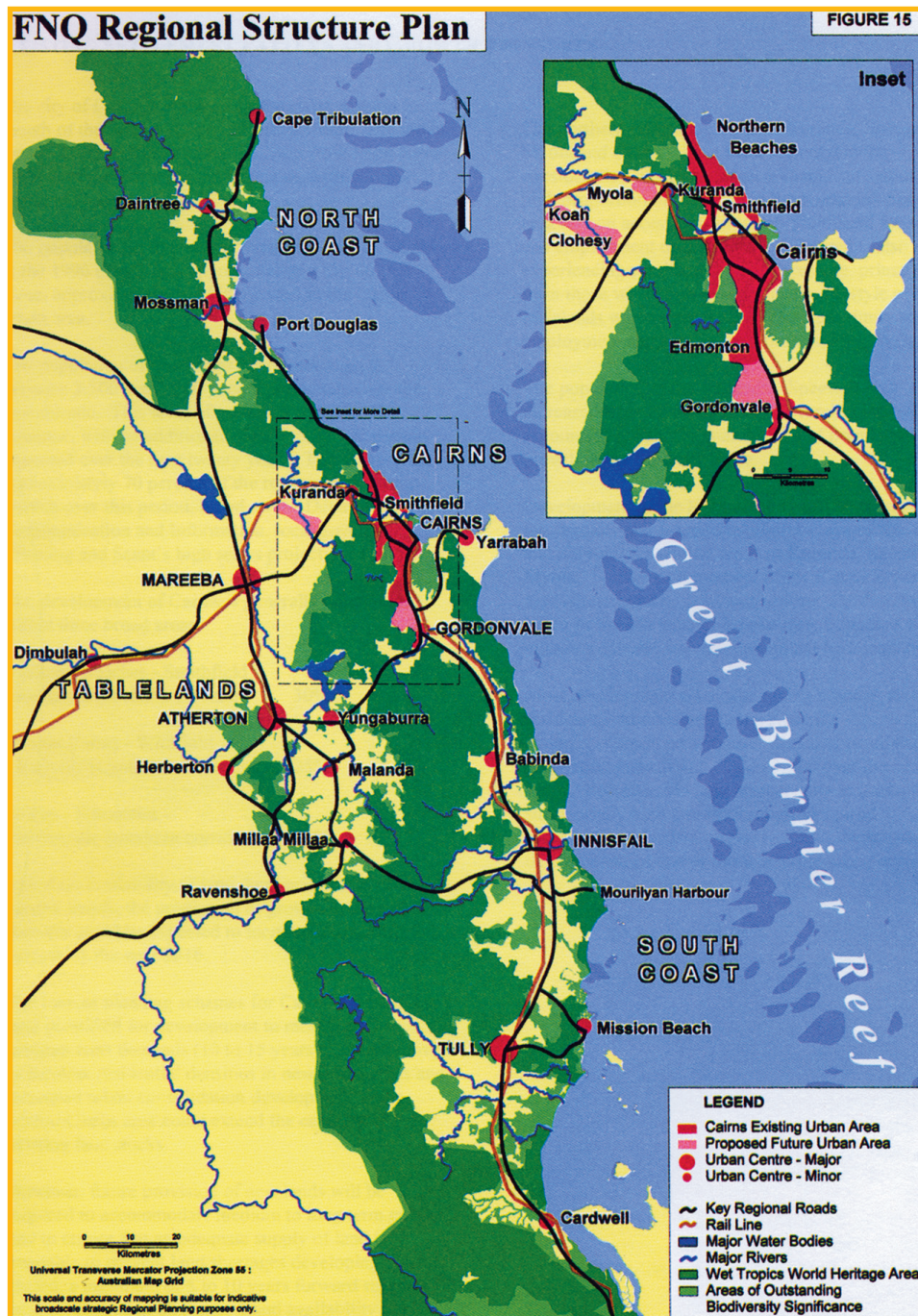
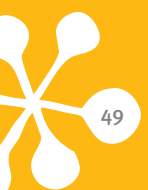


Figure 4-8 Regional sport facility



4.18 Implementing Regional Recreation and Sport

Discussion of Planning and Implementation Issues:

Local governments should consult with state agencies and adjacent local governments to determine the required level of regional recreation and sport provision. In many cases the local government will be partly responsible for supporting the development of regional facilities and opportunities. Regional facilities can include sporting complexes, regional, state or national level competition facilities, larger natural areas managed for conservation, recreation or forestry and sites of particular cultural value.

The key issues for recreation and sport are:

- Locational issues include ease of access from surrounding communities and adjacent local governments.
- Site suitability issues include room for future expansion, the appropriateness of the land for the proposed use, access to public transport, and potential impacts on or from surrounding areas.

Related Principles:

- Regionally Significant Open Space
- Cross Boundary Strategic Planning
- Recreation and Adjacent Land Uses.

Implementation Measures:

1. Work with State Government agencies and adjacent councils to develop a regional facilities plan. A needs study may be undertaken by the local council or local steering group, to identify existing regional recreation and sport facilities and likely future needs. Planning at the regional level can minimise duplication and unnecessary competition between facilities, and facilitate appropriate adjacent land uses.
2. When particular facilities are proposed then a feasibility study should be undertaken to identify the best location, the most sustainable facility mix (ie. what is economically most viable and what meets the anticipated needs of the community most effectively) and the most appropriate management solution for the facility.
3. Planning and feasibility analysis should identify potential commercial and sports organisation partners in the provision of regional facilities. This may be done through establishment of a local/regional forum combining local and state government, community and club organisations and commercial operators.
4. To ensure maximum sustainability of a facility, opportunities for multiple use should be considered in the selection of sites and the planning of the facility.
5. Funding of regional facilities can be difficult to resolve and may involve state, local and other partners in the facility. There are a range of potential capital funding programs.
6. Regional recreation and sport facilities can be enhanced in their viability by co-location with other service and use nodes. This may mean encouraging complementary development through leasing of portions of the regional site or through planning scheme provisions that place land use designations on adjacent lands which encourage appropriate development.

Case studies and references relevant to this principle are:

Willowbank Raceway
Green Island

4.19 Open Space Standards/Planning Performance Criteria

Open space standards were adopted in Australia by the National Capital Development Commission (NCDC) in 1972. However, sole dependence on these standards as the method of provision of land for recreation and sport is not recommended. The limitations of the application of these standards include:

- the standards were developed without regard to the recreation and sport needs of the community, or the fact that needs may change over time;
- lack of consideration to indoor and built facilities such as recreation and sport centres and swimming pools;
- lack of consideration of the need to optimise the diversity of recreation opportunities.

The standards are a useful starting point, but planners should also consider the:

- age and sex distribution of the population (to determine the required function of the open space);
- geographical distribution of the population (to indicate the appropriate location of the open space);
- socio-economic characteristics of the population (to indicate broad recreation and sport needs);
- recreation and sport needs of the population (expressed as specific activities in specific settings);
- access to recreation and sport opportunities;
- existing amount of open space (total area in ha and proportion of local government area);
- number and location of alternative/competing/equivalent sites;
- physical characteristics (eg terrain, soil type, climate, vegetation) of the local government area and its impact on recreation and sport opportunities;
- the diversity of opportunities in demand by the population; and
- council's plans for future expansion, renewal and development, which should allow for sufficient quantity and quality of open space for recreation and sport.

The standards need to be adapted to the area of available, suitable land (eg open space attributes such as water courses and riparian corridors, wildlife and pedestrian corridors, linkages with existing open space areas, flat areas for organised sport activities) and the population demographics as mentioned above.

The application of a standard will not necessarily ensure useful land for recreation and sport. An approach that assesses the community, its needs, the physical characteristics of the area in question, the range of settings possible given the physical characteristics and considers the intended functions is supported. For example, settings and functions can include: lineal corridors for cyclepaths, walkways or horse trails; riparian land for water based recreation; and linkages between settings.

4.20 Implementing Open Space Standards/Planning Performance Criteria

Discussion of Planning and Implementation Issues:

The *Integrated Planning Act (1997)*¹⁰ requires the development of “Standards of Service” for “public parks infrastructure” (this is the term used in the IPOLA Bill - it means land for open space, recreation and sport). If councils intend to fund the acquisition or development of public parks infrastructure through the Infrastructure Charges Schedule or Infrastructure Payments Schedule components of a Priority Infrastructure Plan, the open space requirements for future populations must be justified according to an agreed Standard of Service¹¹.

¹⁰ The Integrated Planning Act is currently under amendment with the Integrated Planning and Other Legislation Amendment Bill.

¹¹ The infrastructure charging provisions are under review (see above) and this principle may be updated following final approval of changes

The standards of service help to ensure that public parks infrastructure is planned and funded equitably across a local government area. The recommended approach to developing “Standards of Service” involves a combination of *spatial standards (quantitative standards)* and *performance criteria*¹² (*qualitative standards*).

The use of a broad population-spatial standard such as 4 or 5 ha /1 000 population is useful to assess and plan for supply of public parks infrastructure at a broad (eg. district or catchment) level. However, *spatial standards* alone are not effective in meeting recreation needs as they do not reflect the critical quality issues which affect provision of public parks infrastructure land (such as access, size, distribution, diversity, land quality). The application of a range of additional *performance criteria* to guide the distribution of the bulk land supply, size of individual sites, diversity of settings, accessibility and general quality of land at local, district and shire/city wide levels, will ensure that each neighbourhood or local community has access to a range of diverse recreation opportunities.

IPA recognises that provision of public parks infrastructure should be on the basis of potential demand. In other words, the desirable level of provision per person. The preparation of Standards of Service which combine spatial standards with performance criteria allows for a consistent approach to calculating a charge (such as \$400 per dwelling unit, lot, equivalent person, or other unit of demand resulting from a development).

Performance criteria operate to ensure parks (amongst other things):

- Are within reasonable distances of residential areas
- Are of suitable size and quality
- Provide a diversity of open space settings
- Provide sufficient land for active recreation (sport), and
- Are of sufficient quality to cater for changing community characteristics and use demands.

Standards of Service may be developed as part of an open space recreation and sport strategy or similar strategic planning document. They are also necessary if a local government wishes to plan and charge for public parks infrastructure in the Priority Infrastructure Plan.

Standards of Service applied in a Priority Infrastructure Plan may have a narrower scope and focus than standards adopted for more general open space or recreation planning as they are specifically intended to facilitate planning for trunk level infrastructure (in this case parks recreation and sport) and charging for the planned infrastructure.

The key benefits and impacts of preparing Standards Of Service for recreation and sport provision are:

- Combining spatial standards with performance criteria ensures that sufficient quantity and quality of public parkland is distributed equitably throughout a local government area and provides a framework for planning for and accommodating future demand.
- Councils are able to determine appropriate “Standards of Service” relevant to their circumstances, taking into account a range of factors including local community expectations, environmental outcomes and affordability (ie. Standards of Service must reflect an appropriate balancing of the three elements of ecological sustainability - community, environment and economy).
- Establishing qualitative standards (performance criteria) assists the development assessment process and localised planning by quantifying key assessment factors.

¹² Performance criteria referred to here are meant in the general sense not the town planning sense as applied to an IPA scheme.

It is important to note that standards or performance criteria can be developed for a number of purposes, not just preparation of a Priority Infrastructure Plan, including:

- Land acceptability/suitability criteria for land proposed as future park (such as in a development proposal where need for parkland has been identified but a specific site has not been defined in the Priority Infrastructure Planning)¹³. *Example: when a local park is to be provided as part of the development, acceptability criteria could ensure the land is suitable and has been protected or developed to an acceptable standard. Conversely the criteria can ensure the site has not been used as storage for machinery, fuels and contaminating materials or had all the vegetation, topsoils and other features removed and used in enhancing residential lots.*
- Identifying minimum standard of development required for parks and sporting fields (ie. what facilities should be provided in different types and levels of park). *Example: a council could adopt a set of criteria that ensure all local parks include a play event, water, shade, tables, a bin and have visibility from all boundaries. District parks could have as a minimum: toilets, a large shaded play space with associated tables and bbq area, a kick around area, off-street parking, lights, youth space and water.*

The size and quality associated with land suitable for sporting use is a good example of the need for Standards of Service to guide provision of land for public recreation. If definitive criteria are not developed then public recreation land could end up comprised of highly constrained land types unsuitable for development with limited recreational value (the SLOAP¹⁴ approach). *Example: linear open space less than 10m width, narrow open space corridors subject to regular flooding or containing drains, pocket parks less than 0.2 ha, wetlands and swamps, strips of land located behind residences with a narrow access and no street visibility.*

In addition the size, shape and quality of the land may not allow for sporting activity. *Example: linear strips of waterways and drainage lines provided as public open space can not accommodate informal football games.*

The performance criteria/ Standards of Service are critical in achieving a sustainable outcome for development by ensuring sufficient public recreation infrastructure is in place to meet community needs

Related Principles:

- Recreation Setting Diversity
- Infrastructure Charges Plan
- Multiple Uses of Open Space
- Sustainability of Recreation.

Planning Scheme Implementation:

The Standards of Service are an integral part of the Priority Infrastructure Plan for public parks infrastructure. They should be identified in the Priority Infrastructure Plan. However the supporting rationale and strategy or study that has led to them being adopted may be contained in a separate report.

If desired key elements of the open space, sport and recreation study or other study (*such as a recreation facilities demand study*) that contribute to the determination of the Standards of Service could be incorporated as a Planning Scheme Policy to provide guidance on a number of related issues.

¹³ IPA has changed the way councils acquire land with a much greater expectation that developers will pay a charge and council will acquire land when and where it has identified in infrastructure planning. However there is likely to be cases where a development site includes land proposed for a future park- in such cases a land contribution to the value of the monetary charge assessed can apply.

¹⁴ SLOAP - Space Left Over After Planning



Other Implementation Measures:

1. Preparation of a recreation and sport strategy which determines Standard of Service and identifies hierarchy of provision (ie. what is needed at local, district and local government wide levels).
2. Guides for staff and developers to explain the Standards of Service / performance criteria and how to apply them.
3. Audit and monitoring processes to ensure that, Standards of Service are being complied with or are resulting in the desired level and quality of provision.
4. Preparation of Park Development Standards to guide the range and intensity of development and facilities for parks according to type (eg. informal, sporting, nature based, coastal, cultural) and hierarchy (eg. local, district, metropolitan).

Case studies and references relevant to this principle are:

Park Planning Performance Criteria
Local Area Open Space Plans

4.21 Charging for Public Parks Infrastructure and Priority Infrastructure Plans

The *Integrated Planning Act 1997* (IPA) introduced a new approach to the provision and funding of infrastructure for development. The policy which underpins this approach is that basic or essential infrastructure that communities would reasonably expect to be available (eg. roads, water supply, electricity supply, etc) should be provided. This basic level of infrastructure includes the provision of open space for parkland and sporting fields.

Infrastructure charges as they relate to recreation and sport replace Section 5.6 of the repealed *Local Government (Planning and Environment) Act 1990*, which required developers to contribute towards the open space (parks) of the local government in which their development was located.

Under IPA, infrastructure programs are integrated with land use planning and development decision making. Until local governments have an infrastructure charges schedule, they may continue to apply their pre-IPA development contribution policies.

It is important to note that not all local governments will require, or choose to complete an Infrastructure Charges Schedule (ICS) for public recreation land. For example, those local governments experiencing low or no growth, and therefore with no pressure to approve developments, will probably choose not to complete an ICS. In these cases, a Recreation or Open Space Plan will identify if the existing supply of land for recreation and sport purposes is sufficient to cater for the needs of the existing population. Refer to implementation notes Charging for Public Parks Infrastructure and Priority Infrastructure Plans.

If a local government is completing an ICS, a Recreation or Open Space Plan is an essential precursor as it should provide direction for future land, water and facility development for recreation and sport. A Recreation or Open Space Plan should identify:

- existing and future opportunities for participation in recreation and sport (in terms of activities and characteristics of places or spaces required for each activity);
- existing and future demand for participation in recreation and sport (in terms of activities and characteristics of places or spaces required for each activity);
- the quantity (size/area and number of areas) and characteristics (eg. proximity to transport, location, terrain, etc) of open space required to satisfy the projected demand for outdoor recreation and suggest strategies for identifying, securing and managing these areas; and
- strategies for the future direction and development of land, services, programs and facilities.

These Plans are also beneficial in defining a 'desired standard of service', or performance criteria for recreation and sport land. Refer to Open Space Standards/Planning Performance Criteria (previous section) and Case Study 5.4 for more detail on performance criteria.

Areas subject to urban development would benefit from an assessment for open space elements such as:

- water courses and their riparian corridors;
- pedestrian, cycling, or horse riding corridors;
- flat areas suitable for sporting fields;
- uncleared bushland for a diversity of recreation activities including unstructured children's play, bushwalking, orienteering, mountain bike riding, trail bike riding, horse riding and bird watching or other forms of nature appreciation;
- buffer areas between incompatible land uses; and
- linkages between existing, or proposed open space areas.

In addition, the inclusion of performance criteria statements which consider the overall range of attributes and values of the open spaces required to satisfy the demand for recreation and sport are important to ensure:

- there is not a concentration of one type of area or attribute;
- public open space is not flood prone or otherwise constrained (eg. steep slopes) from use as intended to satisfy the demand for recreation and sport expressed by the majority of the public; and
- opportunities to access and enjoy a variety of open space elements are provided.

A variety of park or open space types for recreation and sport helps to meet existing and possible future community needs. For example, a mix of bushland for recreation, ornamental gardens, sporting ovals and linear parks can provide a range of different opportunities and experiences as required by the community. Conversely, by providing only narrow linear parks, community needs for sporting fields cannot be satisfied or by providing only sporting fields, community needs for cycling, walking or horse riding trails cannot be satisfied.

Brief Explanation of Infrastructure Charges Plans:

The now repealed *Local Government (Planning and Environment) Act 1990* provided for developers to make a contribution towards parks and recreation. These contributions were made as a result of subdivision and were determined as up to 10% of land, works, or a monetary contribution. The *Integrated Planning Act 1997*¹⁵ has replaced this provision with the new mechanism of charges for public parks infrastructure through the Infrastructure Charges Schedule component of Priority Infrastructure Plans.

Priority Infrastructure Plans offer a more effective framework for planning the provision of public parks infrastructure and integrating this infrastructure planning with land use planning.

The IPA requires planning schemes to coordinate and integrate a range of matters including the following:

- Land for public recreation - public parks infrastructure.
- Land for water cycle management and protection of water quality (such as waterway corridors, stormwater management infrastructure, wetlands, retention basins, water catchment protection, overland flow paths and drainage corridors).
- Protection of ecological values ie. conservation areas.
- Protection of scenic values ie. forested hill slopes and elevated areas.
- Consideration of the need for buffers.

¹⁵ The Act is currently under amendment with the Integrated Planning and other Legislation Amendment (IPOLA) Bill.



- Land unsuitable for development due to structural constraints (eg. slope, soil stability) or risks such as fire hazard or adjacent land uses (eg. dangerous industry, contamination etc).
- Protection of cultural values or of cultural significance (eg. cemeteries, historic sites, sites significant to Indigenous culture).

Some of these are able to provide secondary benefits in terms of informal recreation opportunities and can complement the supply of public parks infrastructure (parks and sporting areas). However public parks infrastructure is a specific infrastructure need and as such should be planned and developed in line with emerging community need.

IPA acknowledges the need for planned and equitable provision of public parks infrastructure and requires that councils undertake an appropriate level of infrastructure planning through the preparation of a Priority Infrastructure Plan. Councils that wish to charge for the provision of this planned infrastructure may also prepare an Infrastructure Charges Schedule. For councils who choose to fund the acquisition and development of public parks infrastructure by other means (eg. through general revenue) there is no requirement to prepare an Infrastructure Charges.

Priority Infrastructure Plans identify the public parks infrastructure (including land and embellishments) required to cater for a future population's recreation and sport needs based on the Standards of Service (see previous principle).

IPA will allow Councils to choose how they fund the provision of public parks infrastructure.

1. **Infrastructure Charges Schedules** - state the charges to be levied on development to fund the provision of the public parks infrastructure listed in the schedule and planned in the Priority Infrastructure Plan. Charges are generally issued in association with development approvals, but are not conditions of the approval. Charges must be equitable and transparently calculated on the basis of the proportion of the establishment cost of the public parks infrastructure that can reasonably be apportioned to premises. Charges schedules are required to state the estimated cost of the infrastructure and timing of its provision.
2. **Regulated Infrastructure Charge** - this option is available for all local governments but is primarily aimed at small and low growth local governments. The Regulated Infrastructure Charges will be set by the State and charges up to the maximum specified by the state can be adopted by local governments without the need to prepare an Infrastructure Charges Schedule. The Regulated Infrastructure Charge would be suitable in cases where:
 - the infrastructure network being charged for already exists;
 - limited growth or future development is anticipated and therefore unlikely to require significant expansion of the network;
 - there is little or no need for the rigour or complexity of a basic Infrastructure Charges Schedule and limited capacity to recover the cost of preparing the Schedule from future development; and
 - there is limited capacity to prepare an Infrastructure Charges Schedule.

Both Infrastructure Charges Schedules and Regulated Infrastructure Charges can be used for embellishments, as well as acquiring land. Some examples of embellishments include playground equipment, picnic facilities, shelter sheds, toilet blocks, paths, parking, basic landscaping and training standard lighting for sporting fields.

Infrastructure Charges Schedules will need to be supported by detailed planning which identifies the planned public parks infrastructure. The levels of provision proposed are supported by the Standards of Service which provide the equitable basis for calculation of any charge amount.

The Infrastructure Charges Schedule can be prepared for individual service catchments within a local government area and may only need to cover the areas where growth is anticipated. However for smaller councils who are using the Infrastructure Charges Schedule, it may be more convenient to prepare a single plan across the whole local government to ensure efficiencies in district and local government level facilities are realised.

An additional benefit of the Infrastructure Plan approach is that an assessment of existing available supply in a planning catchment can identify any surplus of land available. This means that the calculation of the charge is based on the real amount of additional land needed to serve the anticipated future population as opposed to a notional supply amount driven by a population-spatial standard. In addition the use of service catchments means that the cost of acquiring land is directly related to the cost and availability of land within that catchment.

4.22 Implementing Charging for Public Parks Infrastructure and Priority Infrastructure Plans

Discussion of Planning and Implementation Issues:

The Priority Infrastructure Plan approach offers a range of benefits for local government in providing public parks infrastructure. Most importantly it requires a more strategic and defensible basis for calculating a charge as the cost of provision is calculated for a specific area and the charge is related to circumstances in that area.

Additionally the charge is calculated on the basis of demand arising from a development not a notional percentage of land area.

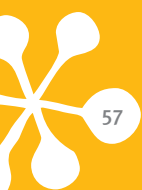
However, councils should consider the implementation issues such as:

- There will most likely be community and developer expectations that the planned public parks infrastructure will be provided, especially if charges have been paid for the infrastructure.
- The human resources and corporate systems that will be required to manage funds.
- Human resources and corporate processes for land acquisition (including landowner negotiation etc).
- If using an Infrastructure Charges Schedule the charge is not part of a development approval. This means mechanisms need to be in place to trigger the charge and to issue an infrastructure charges notice.
- Mechanisms need to be in place to ensure that self assessable development or private certification includes application of the charge or advice to council of the liability.
- The possible need to review some costing elements of the Infrastructure Charges Schedule and undertake adjustments on an annual basis. This is particularly important where the charge rate is linked to estimated acquisition costs of property (the more up to date the base values the better). This may be achieved by the use of a simple indexation mechanism or the use of “benchmark valuations” for acquisition sites applicable to land in individual service catchments.

The key issues are:

- Councils will need to prepare a plan for provision of public parks infrastructure prior to applying a charge¹⁶.
- A structured plan for provision enables better forward capital works planning.
- Planners, developers and the community are able to see what parkland is planned for an area, and in the case of development planners, are able to identify any future park land expectations council may have.
- An acquisition program funded through the infrastructure charge means council can acquire suitable land at a suitable time to ensure quality of provision.
- Implementing Infrastructure Plans does mean that councils will have to consider the level of resourcing required for implementation. The Infrastructure Plan approach requires proactive planning and acquisition as well as financial management and a compliance/monitoring role.

¹⁶ IPA allows for the cost of preparing the Infrastructure Plan to be included in the calculation of the charge.



- Councils will have to carefully manage community and developer expectations about the provision of the public parks infrastructure identified in the plan and for which charges may have been collected.

Related Principles:

- Open Space Standards/Planning Performance Criteria.

Planning Scheme Implementation:

Priority Infrastructure Plans are primarily a planning scheme mechanism. Detailed guidelines are being prepared by DLGP. It is strongly recommended that councils review the guidelines and consider the implications of choosing an Infrastructure Charges Schedule or the Regulated Infrastructure Charge approach.

Implementation Measures:

1. Most importantly the administrative process for levying and recovering the charge needs to be developed. This process must include efficient “triggers” so that approvals relating to self-assessable, code assessable and impact assessable development are advised promptly to the section responsible for issuing charge notices.
2. Councils are advised to consider preparing a project plan for the council’s implementation of an Infrastructure Charges Schedule for Public Parks Infrastructure. Discussions should include: development assessment planners, property managers, parks and recreation managers, financial managers, development compliance officers. The plan should identify responsibility for the following functions:
 - Reviewing the infrastructure plan on a regular basis particularly for fluctuations in property values and changed growth trends, which will affect timing of some elements and the amount of the charge.
 - Ensuring the development assessment process considers the charge approach adopted and that any provision plans are appropriately considered.
 - Management and funding of the acquisition program.
 - Management and funding of the capital works program.

Case studies and references relevant to this principle are:

Park Planning Performance Criteria
Local Area Open Space Plans

4.23 Multiple Uses of Open Space

Often, open space can serve more than one purpose. However, open space areas are often allocated for a single purpose. The allocation of open space for a single purpose such as floodway/drainage, water supply, utility corridors or buffers does not recognise the potential to provide for more than one use of the land.

Open space allocated for a particular non-recreation use may still potentially provide recreation and sport opportunities compatible with the intended primary use. Conversely, open space allocated for recreation or sport purposes may also have value for other open space uses (eg nature conservation, water catchment management, buffers, etc).

As a general principle, the multiple use of open space is recommended where the proposed uses are safe and compatible. This will help to optimise the potential benefits the community derives from its investment in public open space. It may also help reduce the amount of land required for public purposes.

Floodway/Drainage

Drainage areas and floodways are key components of open space. However, when considering floodways and drainage areas for some outdoor recreation activities, a council should consider:

- the physical nature and the location of the floodway (is it accessible to potential users for outdoor recreation?);
- the recreation and sport uses are compatible (safe and possible) with the site/area/corridor;
- only the drainage areas and floodway sections usable for recreation and sport purposes should be included when calculating the amount of open space for recreation and sport;
- the overall balance of open space ie open space dedicated to recreation and sport activities vs open space which has multiple uses; and
- the diversity of recreation and sport opportunities provided.

Water Storages

While stored waters and their catchments are potential resources for land and water based recreation, it is recognised that planning and management for these resources is usually based on water quality outcomes. Storages for domestic water supply are likely to have the most constraints on recreation.

Land required as access to and fronting inland watercourses, lakes and water storages, (as well as lagoons and tidal waters), should be in public ownership to provide legal public access to these recreation settings. Figure 4-9 over the page illustrates one aspect of multiple uses of open space.

Utility Corridors

Taking health and safety into consideration, utility corridors (eg powerline or gas pipeline easements) could be planned and managed for recreation as well as their primary use. However, the factors mentioned in Floodway/Drainage also need to be considered, particularly the compatibility of recreation uses with this type of corridor.

Buffers

Open space is often used as a buffer between incompatible land uses (eg to separate industrial and residential areas). This is supported in principle, provided accessibility, compatibility and diversity are considered. Open space buffer design and management should, at least in part, be based on the recreation needs of the local community. However, unless an open space buffer is particularly large with diverse terrain and vegetation, it will not satisfy all needs for recreation and sport. Therefore, it should not be considered as the total open space provision for the community.

Schools and Tertiary Institutions

Education Queensland is responsible for decisions on the use of schools. The community use of school recreation and sport facilities is one way of providing a range of recreation and sport opportunities to local and regional populations. This is particularly important in areas where land is at a premium, or where a council has scarce financial resources.

School facilities should be managed to allow for optimum community use, which is consistent and compatible with the primary purpose of the school. In many universities, some or all of the recreation and sport facilities and the grounds of the institution are available for community use. Often the facilities are of a higher standard than those available elsewhere in the community. Public access to campus recreation and sport facilities, and open space areas is at the discretion of the administration of each institution.

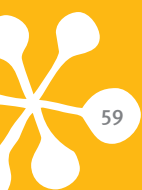


Figure 4-9 Multiple uses of open space



4.24 Implementing Multiple Uses of Open Space

Discussion of Planning and Implementation Issues:

As described earlier there are many types of open space. Multiple use can be a solution to demand as long as the recreational activity does not compromise the values of the open space area and the area itself does not pose an unreasonable hazard to users.

However diversity and accessibility are crucial when planning for provision of public recreation land. In most cases the secondary recreation values of other open space should not diminish planning for active open space areas and useable local informal parks.

Key issues for recreation and sport are:

- Planning ahead for multiple use means design considerations of non-recreation open space can include accommodation of recreational uses.
- Greater diversity of opportunity can be provided.
- Secondary recreational uses of open space can complement the planned park and sporting field network.
- Councils should be cautious in accepting “other” open space with secondary recreation values as part of the park contribution. In many cases such land could be “area discounted”¹⁷ to ensure that land with primary recreation value is acquired as well.
- Crime Prevention Through Environmental Design (CPTED) principles should be considered.
- Where secondary recreation use of non-council controlled land is proposed there should be consideration of management implications for both parties.

Related Principles:

- Recreation Setting Diversity
- Undeveloped Open Space
- Compatible Recreation Activities
- Facility Location / Facility Co-location.

Other Implementation Measures:

1. Use of environmentally important open space involves consideration of compatibility with recreational use. *Example: creek corridors can protect ecological linkages, manage stormwater and water quality and provide informal recreation corridors as long as the “above bank” corridor width is sufficient to accommodate protection of riparian vegetation and a pathway. Other constraints on potential use could include slope, flooding, sensitive habitats and water quality.*
2. Use of some open space for sport and recreation will often involve risk and suitability assessment. *Example: retention basins (or detention basins) could accommodate an open field for informal or formal active recreation (sport). However there would be significant design considerations such as: speed of flooding (ie. how quickly it fills up), access and escape points for users, duration of storage, water quality issues, speed of drying or firming of the field, design of inlet and outlet points to minimise potential drowning issues. In addition formal use is constrained by the uncertain availability of such a field. Local climatic conditions will also feature (ie. this is unlikely to be a good solution in high and frequent rainfall areas).*
3. In some cases shared recreational use of a services corridor will be inappropriate. *Example: high voltage power corridors are not presently suitable for multiple use due to community concerns about electro-magnetic fields (EMF).*

¹⁷ Area discounting has been adopted by several councils. It means that a parcel of land proposed for public park contribution will be discounted in area if it is constrained by some primary use (often flooding). For example the 1 ha of creek corridor proposed is only counted as a contribution of 0.1 of a hectare due to a 10% discounting ratio applied.

4. Some sites are problematic but can be managed. *Example: remediated tip sites can be suitable for some recreation or sport providing potential subsidence, emergence of contaminated material, and methane or other gas issues are managed.*
5. Planning for community infrastructure can often accommodate secondary recreation use. *Example: buffers to transport corridors can provide bikeway and access links.*
6. Schools and institutions are another source of open space (particularly fields) which can be used by community as well as institutional users. Councils should seek to negotiate community access to these facilities directly with principal or other site managers. In some cases there may be opportunities to jointly develop new areas.
7. Council could negotiate with other land management agencies (eg. DNR or Environmental Protection Agency (EPA)/Queensland Parks and Wildlife Service (QPWS)) for recreational access to state lands. In some cases the first step would be to fund management planning (see Case Study/Example - Reserve Management Plans). Later agreements may include council contributions towards infrastructure development or maintenance. In many cases such sites may have regional significance and more than one council could be involved.

Case studies and references relevant to this principle are:

Half Moon Bay Golf Course
 Mt View Park
 Trinity Beach State Park
 Lake Belmore-Croydon Shire
 Ipswich Canoe Trail

Figures 4-10 and 4-11 over the page illustrate different examples of multiple uses of open space.

4.25 Re-development/ Recycling of Land for Recreation and Sport

The influence of the changing economy on land use is evident by the changing nature of the rural towns and commercial and industrial areas in urban centres.

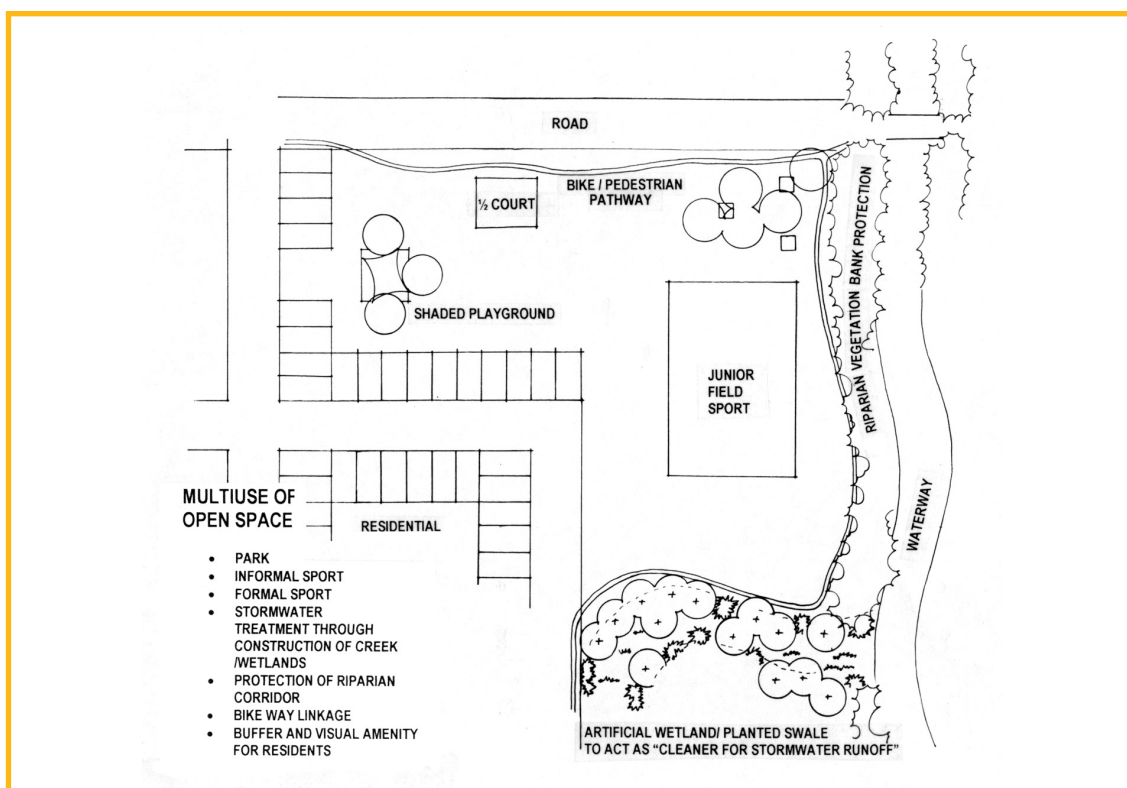
Many rural towns have participated in the Main Street Program to revitalise and redevelop sections of the town and boost the economy. Shifts in the economic structure and advances in technology have impacted on the types of goods and services needed by today's society and changed the recreation and sport needs of many people.

In addition to these changes, there has been a trend towards development of regional commercial centres. However, this has sometimes occurred at the expense of the central business district, drawing people and the expenditure away from city hearts. Part of the urban renewal process has served to counteract this effect by planned redevelopment, which revitalises these areas. By locating recreation and sport facilities such as health and fitness centres in town centres, or redeveloping a town carpark into a tennis centre, recreation and sport can contribute in a positive way to redevelopment.

*Figure 4-10 Multiple use - Overland flow path in lower portion of parkland.
Note: The park also acts as buffer between major retail and services node and residential areas.*



*Figure 4-11 Example concept of multiple uses with public open space¹⁸
Note: The combination of open space types include waterway corridor, stormwater/drainage corridor, public parkland and multi-use bikeway network.*



¹⁸ Illustration courtesy of Siteplan Cairns



The changes mentioned have resulted in new opportunities and settings for recreation and sport. Some examples include:

- disused warehouses redeveloped for use as multi-purpose indoor recreation and sport centres; colleges of the arts; venues for cultural activities such as galleries and workshops;
- if managed appropriately, old rubbish tips redeveloped for open space, recreation and/or sport (refer to previous section, Multiple Uses of Open Space);
- abandoned drive-ins becoming sites for skateboarding, or redeveloped for other recreation and sport activities;
- depending on the nature of the site and the design of the finishing works, disused quarries, sand mines and gravel extraction leases redeveloped as outdoor recreation sites for activities such as rock climbing, abseiling, picnicking, swimming and off-road vehicle use;
- mining spoil dumps redeveloped as sites for competitive sports requiring rough terrain (eg motorsport and mountain bike riding) and exclusive use of an area for safety; and
- temporarily vacant building sites designed as temporary parks, to enhance the amenity of the area until permanent development of the site commences.

Where an area is redeveloped/rehabilitated for competitive events requiring exclusive use, or for difficult to locate activities such as off-road vehicle use, surrounding buffer zones and recognition and protection in local government planning schemes are necessary. In the absence of such measures, subsequent incompatible development (eg residential subdivision) may force the closure of the site. It is often the case that there is no suitable alternative site available in the vicinity. As a result, participants in these high impact recreation activities are displaced from areas they could legitimately use and may illegally use other lands.

At some sites, it may be necessary to stabilise, contain or remove toxic residues from previous land uses. In these cases, site rehabilitation may be the responsibility of one or more of the following organisations.

- the holder of the quarrying lease/licence
- the land owner
- the council
- the Environmental Protection Agency
- the Department of Natural Resources and Mines

4.26 Implementing Re-development/Recycling of Land for Recreation and Sport

Discussion of Planning and Implementation Issues:

There are numerous examples of recycled land being used for recreation and sport. Examples include old dump sites, depleted quarries, disused rail and other transport corridors, and former stock and water reserves. One of the most widely recognised is the use of old dump sites for sporting fields. This example also provides one of the most important lessons in recycling land, that effective remediation is critical prior to recreational use. Many councils are now struggling with the costs of properly remediating landfills which have been supporting sport for many years. Issues such as subsidence, emergent waste, leachate and potential contamination of users have posed serious concerns.

Whether the site is an ex-carpark or a depleted quarry there are a range of considerations required for planning the recycled use. In brief these are:

- Managing risk from the past use;
- Managing risk in the proposed use;
- Proposed use of the site and appropriate level of public access;
- Who will own the site;
- Managing the site, maintaining the site (and any remediation measures) and monitoring site conditions;
- Funding the remediation and redevelopment (cost of recycling); and
- Adjacent land uses and future land uses and the need for protection of the site in the planning scheme through designated buffers or controlled development.

Related Principles:

- Recreation Setting Diversity
- Multiple Uses of Open Space
- Sustainability of Recreation.

Other Implementation Measures:

1. Recycling land can be efficient land use and offer lower cost or more appropriately located alternatives to purchase and development of new lands. *Example: a disused rail corridor between two townships offers a graded easement for walking, horse or bike trails at a fraction of the cost of securing and grading a new easement.*
2. The recycling of some uses can provide unique opportunities for adventure based recreation. *Example: a depleted quarry could provide a venue for climbing or BMX bike activities.*
3. Land can be developed for temporary use as public open space. *Example: a building site can provide needed park land while longer-term solutions are sought.*
4. Advance planning for “post use” of a site preferably at approval stage can ensure that conditions require adequate remediation for recreational “post use”. *Example: protocols for a dump site that preclude the dumping of hazardous waste.*
5. Recycling of land can also bring some significant responsibility for councils who then must manage ongoing risk and contamination issues. *Example: some long term dump sites have a poorly documented history and thus involve significant risk assessment for councils.*
6. Inventory assessment across all land tenures can often identify new opportunities for recycling land for recreation.
7. Redevelopment plans and ongoing management of remediated sites should involve agencies/officers involved with the original activity.

Case studies and references relevant to this principle are:

Half Moon Bay Golf Course

Figure 4-12 over the page illustrates some examples of recycled land.



Figure 4-12 Recycled Land

Golf course fairways and greens being constructed on remediated refuse dump at Yorkey's Knob. Note the methane vents and limited tree planting.



Following sand extraction the resulting “lake” and surrounds will be landscaped and the riparian vegetation extended to the lakes edge. The final remediation will provide a useful informal park with a major water feature.



4.27 Tourism and Outdoor Recreation

Planning and policy decisions that support tourism do not necessarily support outdoor recreation or nature-based recreation (refer to Appendix A for definitions of these concepts). However, it is sometimes assumed that decisions that support tourism automatically or inherently also support recreation.

The concept of recreation setting needs some explanation at this point. Recreation settings are the result of the combination of the biophysical, social and managerial attributes of a place in which recreation takes place. Refer to the full definition in Appendix A. Recreation settings range from wild-natural-remote through rural to urban-built-developed. When combined with recreation activities (eg rockclimbing, walking, swimming, picnicking, horse riding, etc.), recreation settings are the ultimate products of recreation planning and management. Particular combinations of recreation activities and recreation settings (eg kayaking on a remote white water river, walking in an urban park, horse riding on quiet rural roads, etc.) are the things that are consumed by tourism and recreational pursuits.

Many tourism enterprises are based on provision of built infrastructure such as airports, resorts, shops, wharves and so on, rather than the natural attributes of a particular location. Tourism infrastructure is often designed to concentrate clients/customers in specific locations where they can buy goods and services as much as it designed to provide access to attractive “natural” locations. Tourism enterprises tend to dominate the physical and social character of places where they are located or which they use. For obvious and legitimate commercial reasons, tourism enterprises also seek to attract the maximum possible number of clients. While facilities-based large volume tourism is appropriate in the more developed or least natural recreation settings, it is inappropriate in other settings.

On the other hand, some forms of outdoor recreation and all forms of nature-based recreation tend to be unstructured, spontaneous, dispersed in space and time, dependent on the more natural recreation settings and independent of much of the built infrastructure needed for large scale tourism. Recreational activities or styles that do not require built facilities or large numbers of people but which rely on the natural attributes of recreation settings tend to be displaced from the locations where built facilities and large numbers of people have been imposed.

Tourism development and activity often targets attractive landscape features such as beaches, water holes, coral reefs, safe anchorages, white water sections of rivers, lookouts, etc. Typically, the settings surrounding these natural landscape features are changed to make them suitable for tourism. For example, access might be “improved”, numbers of visitors increased and onsite accommodation and/or catering provided. The result is that the physical, social and management character of sites or features that were relatively natural may be fundamentally changed. Consequently, the diversity of recreation settings and access to sites for outdoor recreation for local communities and for the individual’s outdoor recreation can be significantly reduced by tourism development.

However, it is also fair to say that, in certain circumstances, tourism and outdoor recreation can be compatible enough to share the same location at the same time. The key to this is recognising that the tourism “product” is often the opportunity to experience natural environments through outdoor recreation activities. For these types of outdoor recreation/tourism products to be sustainable (both ecologically and economically), they must not change the physical, social or management characteristics of the more natural recreation settings on which they depend. Where tourism is essentially the same as outdoor recreation (ie. where the built infrastructure needs are the same, group sizes are the same and the same management regime applies), it is quite possible that they can be compatible.

The guiding principles are:

- Do not assume that tourist development will satisfy the recreation needs of local residents or the free and independent individual's recreational pursuit.
- Develop planning policies and principles, management approaches or strategic actions to identify, protect and maintain the maximum possible diversity of landscape settings.
- Plan to maximise the quantity, quality and diversity of recreation settings in open space areas so that the broadest possible range of recreation demands can be accommodated.
- Avoid unintended recreation succession (refer to Recreation Setting Diversity for an explanation of recreation succession).
- Develop planning policies and development provisions that direct built infrastructure-dependent tourism to sites within appropriate landscape/recreation settings. That is, assess all development proposals against criteria for setting appropriateness.

Figure 4-13 over the page shows tourism and outdoor recreation in different settings.

4.28 Implementing Tourism and Outdoor Recreation

Discussion of Planning and Implementation Issues:

Outdoor recreation and nature based tourism are both heavily dependent on the setting within which the activity occurs. Perceptions of change, impact of use, management influence and crowding can cause major shifts in the users' experience. The tendency of tourism to be commercially and "volume driven" can threaten a setting's values creating a loss of diversity for local communities as well as threatening the basis of the tourism attraction¹⁹.

This principle identifies there are potential conflicts and potential benefits from the interaction of tourism and outdoor recreation. To manage conflicts and realise benefits strategic planning and detailed consideration of impacts is required. In a well planned result, for example, the tourism infrastructure/ development may provide the access infrastructure (gateway) for tourists and locals alike, to a significant natural attraction. The tourism management may provide day to day operation of facilities and a range of accommodation (including camping) and even transfers to or from the location. All of these may be out of reach for the local government. However, the local government and other management agencies can establish detailed activity management plans to ensure that the natural resource is not threatened and that the setting's values are maintained and any impacts monitored.

Related Principles:

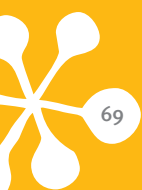
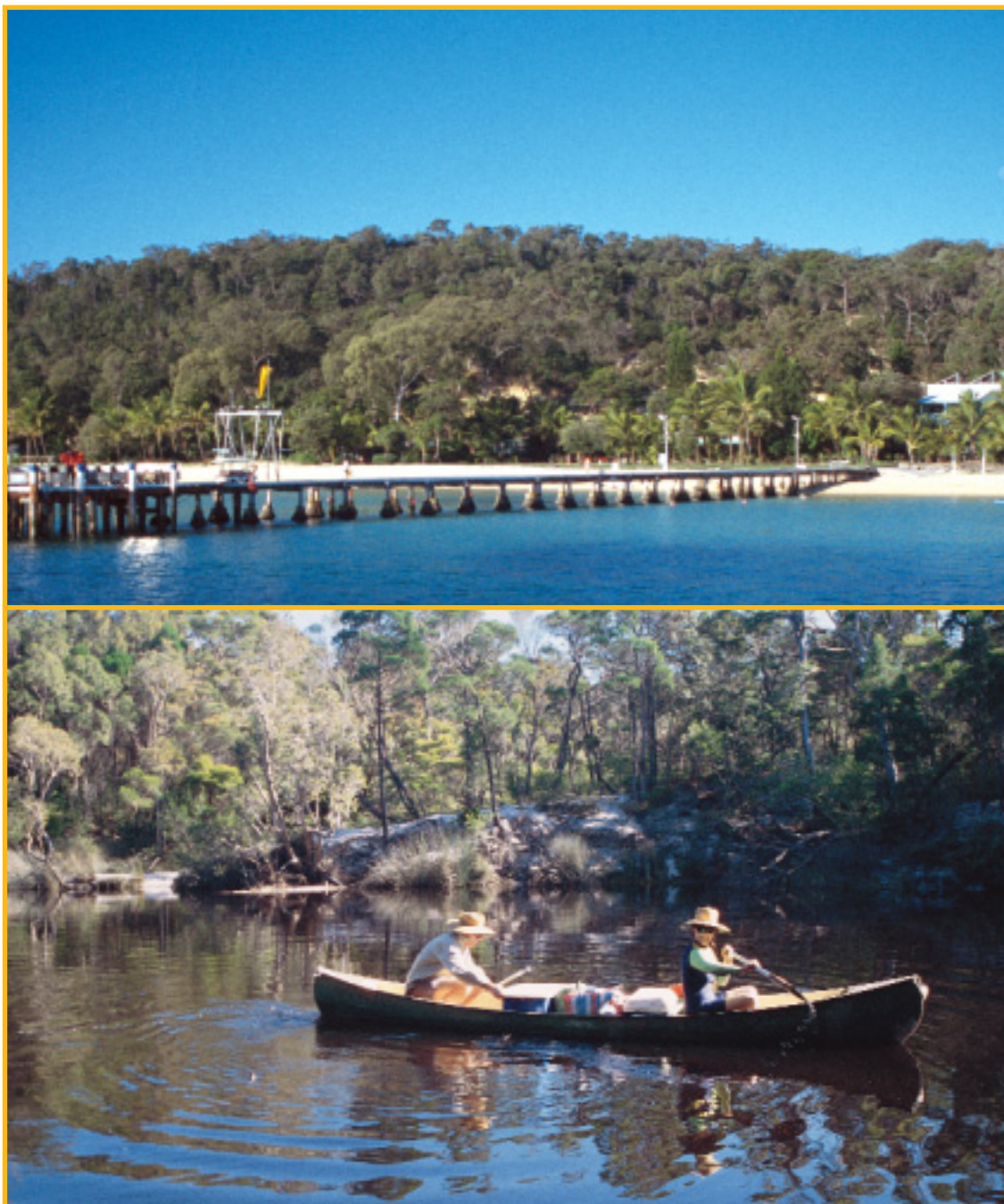
- Recreation Setting Diversity
- Sustainability of Recreation
- Regionally Significant Open Space.

Implementation Measures:

1. Tourism infrastructure and activity can have negative impacts on outdoor recreation activities by changing the physical or perceived setting. *Example: large scale white water rafting activities may impact on local recreational use of a wild and scenic wilderness river.*

¹⁹ There are significant cross cultural issues which operate in analysis of setting. While a party of 50 visiting a natural area may be seen as over crowding by locals using an area, for tourists from densely populated and highly developed cities 50 may be seen as having minimal effect on the setting.

Figure 4-13 Tourism and outdoor recreation



2. If access and infrastructure are well planned, and activities are managed appropriately, there are opportunities for tourism to provide the local community with increased access to outdoor recreation activities through the provision of transport or other infrastructure. In addition tourism can be a sustainable enterprise that contributes to the local economy. *Example: road access to a popular site being upgraded to all-weather access because of the site's tourism importance to a regional economy.*
3. Councils should consider carefully the level of investment they make in developing recreation infrastructure for tourism, particularly the impact on the community and the identification of the likely return from enhanced regional economic activity. *Example: councils can monitor tourism visitation and use these statistics to develop measures of regional economic benefit, employment generation etc.*
4. Council should avoid reactive management of commercial tourism as this can create future unforeseen management issues. *Example: a tour operator applies to council to use a particular site. Council must consider issues like exclusivity, management of future additional operators wanting similar access, appropriate time periods for leases and renewals, performance indicators which incorporate site monitoring etc.*
5. Council can manage sites for both spatial and temporal separation of tourist and local recreation use. *Example: providing separate areas for coach and tour groups - bus parks, larger shelter areas for groups. Limiting commercial access to some areas to week days to allow local exclusive use at weekends.*

Case studies and references relevant to this principle are:

Green Island
Half Moon Bay Golf Course
Willowbank Raceway
Wet Tropics Walking Track Strategy

4.29 Compatible Recreation Activities

Compatible recreation and sport activities are those which can use the same place at the same time or the same place at different times. However, for safety, commercial, facility capacity or other reasons, some recreation and sport activities cannot occur in either the same place at the same time or the same place at different times. These recreation and sport activities are incompatible.

The multiple use or sharing of facilities and/or land may be possible for compatible recreation and sport activities. The value to the community of a facility or an area of land is significantly increased if multiple recreation use is possible.

To maximise community benefits from investment in land and facilities for recreation and sport:

- recreation and sport facilities and open space should be designed and managed for concurrent use by a group of compatible recreation and/or sport activities; and
- where concurrent use is not possible, facilities and land should be shared between recreation and/or sport activities

Multiple use and sharing of recreation and sport facilities for compatible recreation and/or sport activities is becoming more important as:

- many recreation and/or sport organisations have insufficient income to construct and/or manage exclusive use facilities;
- the viability of single-use or exclusive facilities is questionable in terms of both finance and number of people who use or benefit from the facilities;
- multiple use facilities or open space optimises the community benefits from investment in both built infrastructure and land;
- multiple use facilitates an efficient use of existing recreation and sport land and built facilities;
- multiple use avoids unnecessary duplication of recreation and sport facilities; and
- multiple use usually provides for a greater variety of community recreation and sport needs.

Recreation and sport activities such as competitive motor sports, recreational trail bike riding, horse riding and mountain bike riding are difficult to find places for, particularly in urban and suburban areas and usually require exclusive use. However, when these activities are expected to share the same space, incompatibility issues and conflicts often arise.

For example, competitive motor sports may require exclusive permanent or periodical use of an area (depending on the frequency of events) and specially designed terrain or track features (eg jumps, bog holes, quarter mile straights, etc). Recreational trail bike riding may cause pollution (noise, smells and dust) and erosion and require management of vehicle speed and direction, rider behaviour and vehicle condition. Horse riding on regularly used roads can be dangerous. Some “recreational” mountain bike riders on downhill sections may reach speeds that make trail bike riders envious (and nervous) and present significant risk management issues for land managers and other potential users.

In some situations, the principles of multiple use by compatible activities are well established. For example, designs for multiple use halls that can be used for basketball, volleyball, netball and other recreation and sport activities are well known. However, multiple use facilities (eg halls, sports centres, swimming pools) still need to be managed appropriately to ensure each user group has: sufficient amount of time for training and meetings; equitable use for major events and competitions; and adequate storage space. Therefore, while the activities may be sufficiently compatible to share space, if the facility is not managed properly, tensions between competing users may still exist.

The design as well as the management of areas of open space which might be used for recreation or sport is quite complex and often contentious. No one suggests a local sporting oval can be used concurrently for rugby league, horse racing, netball, cricket, informal bike riding by young children, flying model aircraft, swimming and throwing sticks for dogs. Yet, informal recreational open space is often expected to concurrently cater for activities clearly incompatible without any specific management.

Bushland near suburban development designated (formally or informally) as open space will frequently be the only locally available place for activities. These activities may include activities such as adventure play and exploration by young children, horse riding, off-road or off-highway vehicle use (some of which can be very fast for the conditions), mountain bike riding, picnicking, bird watching, orienteering and informal walking (with and without dogs).

These activities use the landscape in different ways and attract different participants (by age, sex, ethnic background, etc) with different expectations.

Figure 4-14 over the page illustrates different activities sharing the same area at different times, and different, compatible activities sharing concurrently.

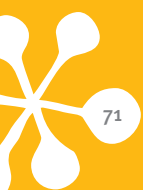
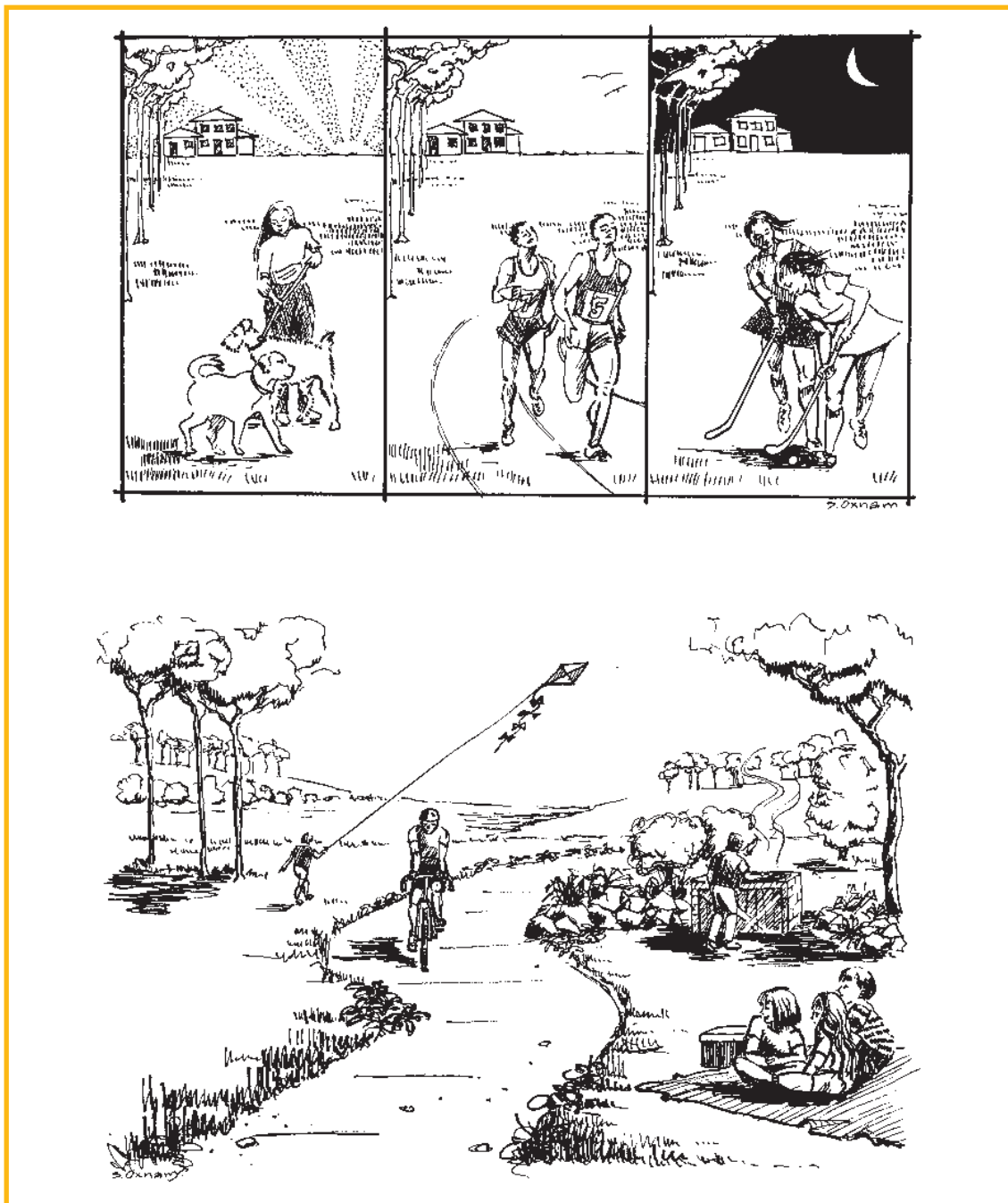


Figure 4-14 Compatible recreation activities



To help determine whether or not particular recreation and sport activities are compatible, the following factors should be considered:

- requirements for special terrain or landscape features (eg terrain for triple jumps for motorcross, cliffs for rockclimbing and abseiling, wetlands for bird watching, etc);
- design requirements and maintenance regimes for built facilities (eg lighting, track surface, length, width or height, nets, field or court markings, size of playing area, amount of spectator seating, depth and quality of water, etc);
- requirements for activity specific safety or risk management strategies (eg ‘run off’ space around courts or fields, hills at the end of rifle ranges, track marshals for motorsports, warning and educational signs, etc);
- requirements for spatial, seasonal and/or temporal segregation of activities;
- numbers of participants;
- demographics of participants;
- numbers of spectators;
- appropriateness of the activity given the landscape or Recreation Opportunity Spectrum class of the area (refer to the section Recreation Setting Diversity); and
- biophysical, social or managerial impacts of the activity (eg impacts on plant and animal communities, the characteristics of the group of people participating, and impacts on management structures).

4.30 Implementing Compatible Recreation Activities

Discussion of Planning and Implementation Issues:

While activities may be compatible in terms of the conduct and timing of activities, they may not be compatible in terms of the host site and surrounding residential areas.

This means that activities must always be considered in terms of site and off-site impacts as well as the functional aspects of providing activities.

In addition compatibility should not just focus on sport, as there are considerable benefits in combining formal and informal activities. *Example: the increasing trend to provide informal park facilities in conjunction with formal sporting areas. This provides district level sporting opportunities as well as local level informal recreation such as playgrounds, walking/riding trails and picnic areas.*

The key issues for recreation and sport are:

- Greater efficiency in the use of open space areas
- Potential for greater diversity of opportunity
- Potential economic benefits due to cost efficiencies in maintenance and management
- Potential to “over use” and damage a site or create unacceptable impacts for adjacent residents or land uses.

Related Principles:

- Multiple Uses of Open Space
- Facility Location/ Co-location
- Tourism and Outdoor Recreation
- Recreation and Adjacent Land Uses.

Implementation Measures:

1. There is a need to consider the capacity of a given site to accommodate multiple uses/ more intense use/longer duration of use. *Example: a single field might accommodate a winter and summer field sport as long as the levels of use and cross-over of seasons allow time for recovery and maintenance. If the intensity of use is too high then the field will gradually decline until it requires closure for rehabilitation.*
2. Unless use is managed sustainably, over use will increase the maintenance and repair costs. *Example: the cost of re-turfing an over-used field.*
3. There is a need to consider the compatibility of activities that involve sequential use. *Example: football in winter - cricket in summer and opportunities for concurrent use. Example: family picnics on the verges of a park where a cricket match is being played.*
4. Impact on surrounding areas is also of critical importance. *Example: adjacent residential areas may experience unacceptable impacts if a field is lit regularly at night and a range of traffic and noise producing activities are carried out.*
5. Master planning, policy and approval processes, and negotiation of leases should all involve the active consideration of increasing compatible activities. *Example: security fencing a leased area may preclude otherwise compatible activities.*

Case studies and references relevant to this principle are:

Trinity Beach Skatepark
Half Moon Bay Golf Course

4.31 Recreation and Adjacent Land Uses

The early assessment and identification of land for recreation and sport will assist local governments to minimise potential conflict between recreation and sport and adjacent land uses. While recreation and sport facilities (or centres of activity) must be accessible to the community, the potential impact of facilities on surrounding areas must be considered.

National standard sports facilities such as ANZ Stadium in Brisbane generate noise, light, increased traffic flow and parking problems, all of which impact on nearby residents. By providing sufficient buffers between the venue and surrounding areas, additional bus services to the venue, restricting parking in residential streets within a radius of 800 metres of the venue, impacts are minimised.

The identification of appropriate areas for these facilities during the town planning process, and subsequent protection or reservation of land in the planning scheme, will ensure adequate provision in compatible locations. Activities located away from environmentally sensitive areas and residential areas can minimise potential conflicts. Management mechanisms to minimise the impact of recreation and sporting facilities on adjacent areas of nature conservation, cultural heritage, water catchment or agricultural production value may be needed.

Some outdoor recreation activities such as four-wheel driving and trail bike riding do impact on the natural environment, and they need to be catered for. Areas such as disused quarries and post closed mining sites provide potential, compatible locations. Refer to the section Redevelopment/Recycling of Land for Recreation and Sport for further information.

4.32 Implementing Recreation and Adjacent Land Uses

Discussion of Planning and Implementation Issues:

The application of this principle is most significant when considering location of or management of facilities at district level and above (eg. a major sports stadium) or location of activities that generate significant visual or noise impacts.

The key issues for recreation and sport are:

- Early consideration of likely impacts in planning locations and site uses
- Minimising conflicts between recreation areas and other land uses
- Recognition that some pre-existing recreational uses should constrain adjacent residential development due to potential impacts from the recreational use
- Recognition that new land uses adjacent to a recreation area may have unacceptable impacts on the recreation area.

Related Principles:

- Sustainability of Recreation
- Facility Location / Co-location
- Compatible Recreation Activities.

Implementation measures:

1. Adequate consideration of the likely impacts from activities can resolve issues by ensuring that buffers are established, activities are located appropriately for the adjacent land uses and development is constrained to an appropriate level for the site. *Example: location of a noisy activity such as shooting or motorsport well away from residential and potential residential areas.*
2. In some cases there may be compelling reasons for a site to host an activity that may impact on surrounding land uses (such as integration with transport infrastructure, existing user groups). In such situations then the impacts have to be mitigated where possible or minimised where complete mitigation is unlikely. Usually negotiation with surrounding residents (or other land use owners) can identify activity management plans that assist in mitigation/minimisation. *Examples: shielding of lighting, use of earthworks and vegetation to baffle noise, restrictions on street parking.*
3. Management of user groups or lessees who conduct activities in council parks and sporting fields should identify a series of policies or requirements which ensure users/ activity managers minimise impacts and where necessary work with “neighbours” to resolve conflict issues. Lease and licence conditions should clearly establish limits to activities and impacts.
4. Master planning for larger park areas which identifies internal constraints on various uses (eg. ensuring one internal use does not impact negatively on another) and external constraints (eg. need for buffer zone between noisy activities and an adjacent nursing home).
5. State sporting associations should be consulted when planning for larger facilities to ensure that planning for the site and the surrounding land consider any likely future expansion.

Case studies and references relevant to this principle are:

Willowbank Raceway
Half Moon Bay Golf Course
Rafting Ground Reserve Master Plan

Figure 4-15 over the page illustrates concept plans for adjacent land use planning.

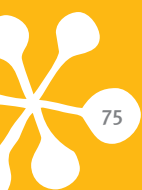
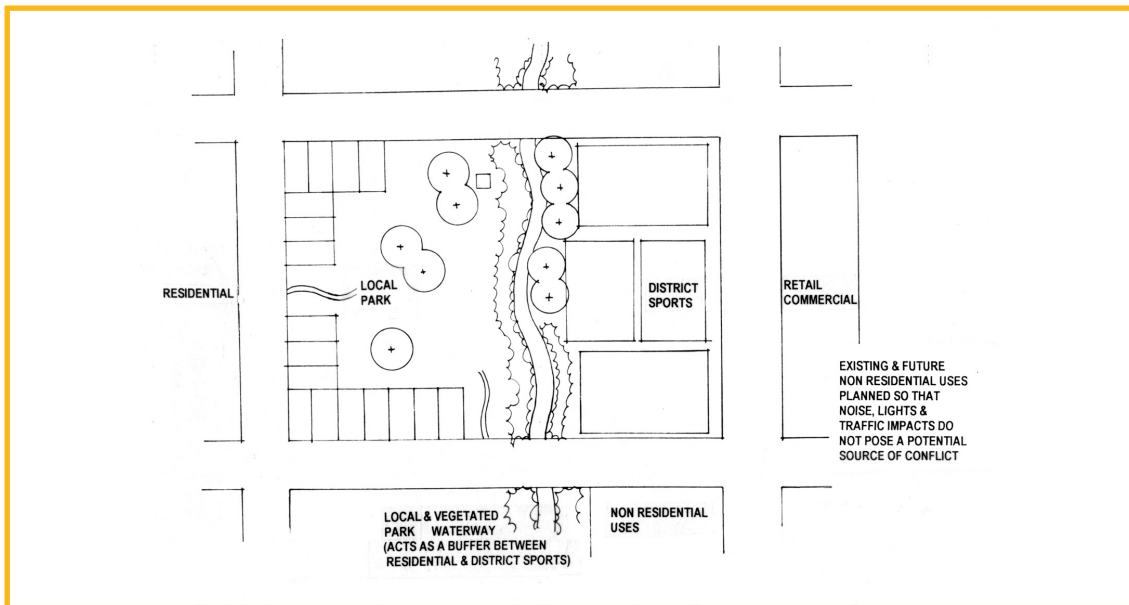
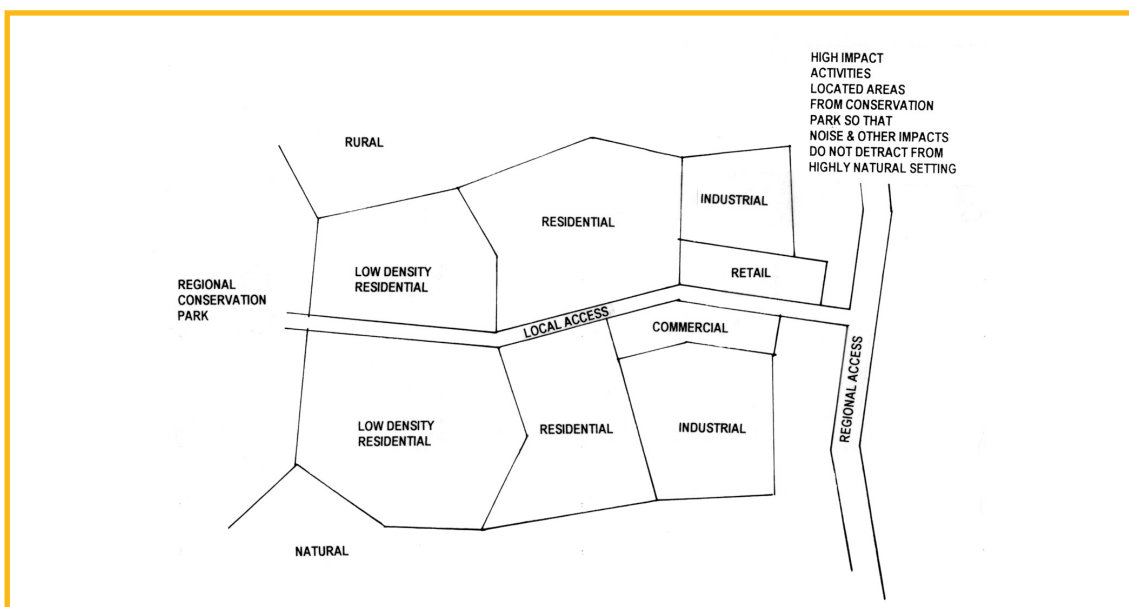


Figure 4-15 Concept illustration of planning land use adjacent to outdoor recreation areas²⁰



Concept showing planning for district sport use



Concept showing protection of Regional Park (natural setting)

²⁰ Illustration courtesy of Siteplan Cairns.

4.33 Facility Location - Facility Co-location

4.33.1 Facility Location

Land for recreation and sport should be allocated as an integral part of the town planning process, so essential infrastructure for recreation and sport is developed along with other essential services.

Recreation and sport facility location and distribution should be determined through specific facility needs studies to ensure adequate and appropriate facilities are located in areas of need. Local governments also should ensure sufficient land is available in these areas of identified need, through town planning mechanisms such as designation of land for community infrastructure, infrastructure charges or developer contributions.

When conducting facility needs studies the following factors should be considered: (facilities in this section are taken to mean built facilities).

- Age and sex distribution of the population (to indicate the type of facilities required).
- Geographical distribution of the population (to indicate the appropriate location of facilities).
- Socio-economic characteristics of the population (to indicate broad recreation and sport needs).
- Participation patterns and community needs, including those of the disabled, women with young children, elderly, and youth.
- Existing facilities and their usage patterns.
- Suitability of facilities for the catchment population.
- Accessibility to the facility ie ease of access, safe access, connections between facilities and residential areas.
- Compatibility of neighbouring land uses.
- Areas of over and under supply. Consider what other activities could be offered that are not currently available.
- Sequencing of development and expansion within the local government area, which may impact on the land available for facilities and the timing of their provision.

In general, recreation and sport facilities should be located:

- in close proximity to the population, but not so as to adversely impact on residential amenity;
- at, or close to, transport nodes to maximise accessibility;
- at sites which enhance the economic viability of the facility; and
- close to other, compatible community facilities and commercial facilities.

4.33.2 Co-location of Facilities

Recreation and sport facilities need to be located close to, and integrated with, residential areas, commercial/retail areas, other community facilities, cyclepaths and pedestrian pathways, public and community transport and car parking areas. This encourages the maximum usage of facilities and is a more effective use of infrastructure. The economic viability of recreation and sport facilities and the appropriate, viable location of the facility should also be considered.

The co-location of a compatible mix of uses such as public space (ie in which to socialise), transit stop, low order retail, a variety of housing types and open space is encouraged to provide choice and flexibility over time. The mix of uses should be such that they endure as people's life cycle changes, rather than creating sectoral neighbourhoods, which may decay over time.



An integrated approach to planning residential areas, community facilities, public open space, and retail and commercial services creates opportunities for greater social interaction, lowers the proportion of trips made by car and increases the viability of the facilities.

However, care is needed to ensure incompatible uses are not located in close proximity to each other. Some sport and recreation activities have the potential to adversely impact on residential amenity (noise, dust, lighting) and these activities need to be located in non-residential areas or surrounded by appropriate buffers which minimise their impact.

The location of community facilities close to commercial facilities improves access by public transport, and by non-motorised transport (refer to Non-Motorised Recreation Trail Network). This approach also supports a vibrant, enduring community. In addition, the location of parks in industrial estates not only enhances the aesthetics of the estate, but can also provide passive and active recreation opportunities for employees. These parks form a buffer zone between land uses eg volleyball, half court basketball, outdoor chess, seating in shade for reading or social gatherings.

Sports co-located in a facility can establish a joint sports clubhouse to financially support the sports involved, as well as provide opportunities for social participation. These strategies will work provided the stakeholders are prepared to share facilities and to work cooperatively towards a common outcome.

Figure 4-16 over the page illustrates co-location of facilities.

4.34 Implementing Facility Location - Facility Co-location

Discussion of Planning and Implementation Issues:

Facility location and co-location should consider a range of factors to ensure that the facility is located in the most advantageous site to maximise community access and benefit as well as ensure sustainability (economically, socially and ecologically).

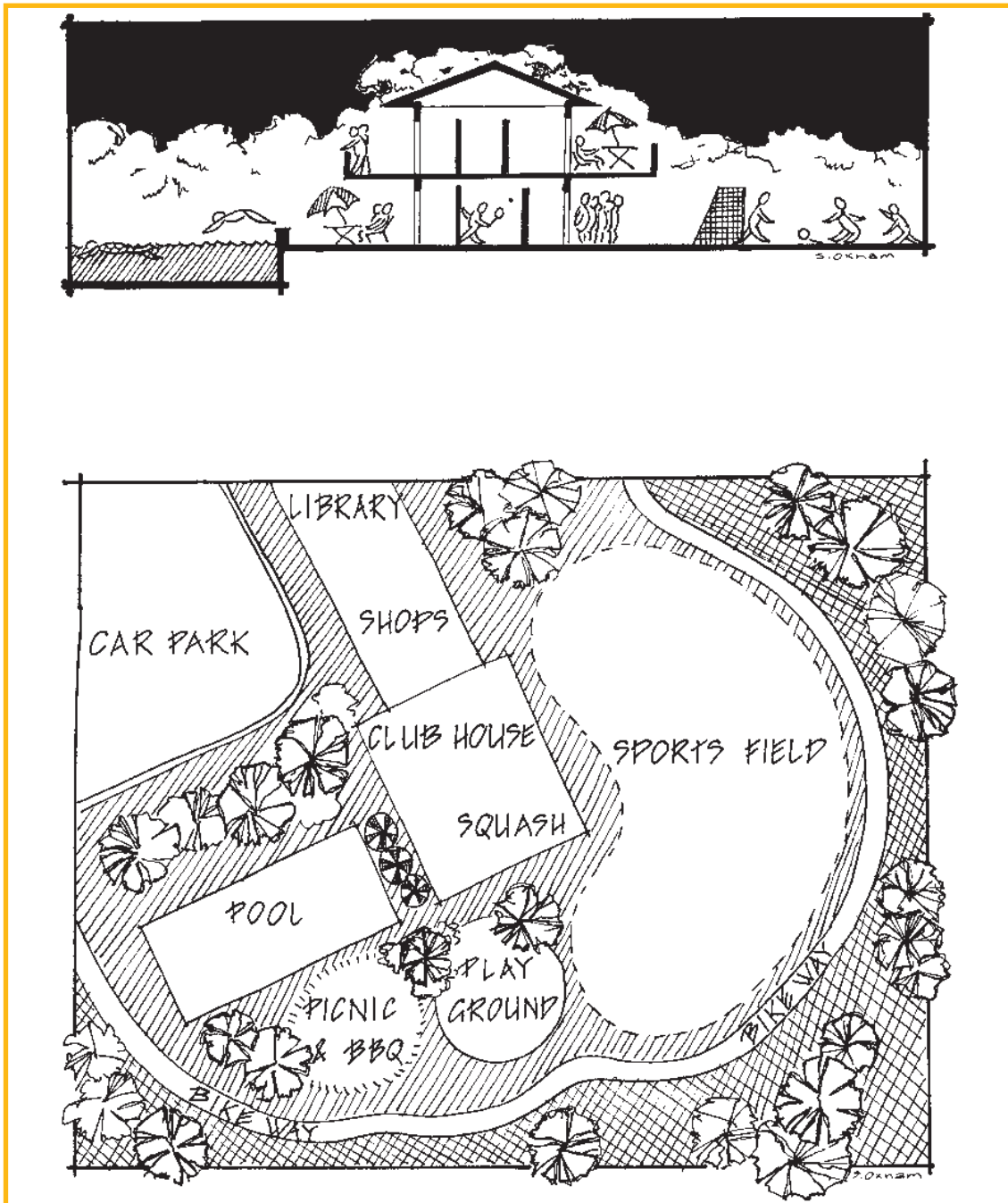
The main considerations are:

- The scale or intensity of the proposed facility and likely impacts on adjacent land uses.
- Increasing viability and accessibility by locating near public transport and access networks, and service nodes.
- Potential benefits of co-locating so that multiple recreation or community facility options can be available in one destination and to minimise infrastructure duplication (eg. carparking).
- Compatibility of uses and users.
- Selection of sites which have the capacity for future expansion or modification to accommodate increasing or changing demand.
- Interaction with other facilities on the site and efficiency of existing site infrastructure.
- Possible conflicts between uses, users or facilities *Example: library next to a motor sports facility.*
- Maximising the range of opportunities available to the community.
- Potential for sharing maintenance costs and monitoring procedures.
- Co location to enhance sharing between major user groups. This can form the basis for shared use agreements between education users and community users *Example: building an aquatic centre adjacent to a school so that a major user group is “next door”.*

Related Principles:

- Multiple Uses of Open Space
- Compatible Recreation Activities.

Figure 4-16 Co-location of facilities



Implementation Measures:

1. Preparation of master plans for district level sites that consider potential co-location options and internal location issues.
2. District or local government wide open space planning can provide preferred locations for facilities or district level public recreation lands so that information can be fed into strategic and land use planning as well as consideration of local development proposals.
3. Regular intra and inter agency liaison with a planning network of representatives from Education Queensland, Community Service, Tourism, Queensland Parks and Wildlife Service as to the potential to co-locate facilities, services and programs.
4. Consider opportunities for shared use with schools in planning new facilities or identifying any resources to respond to existing demand.
5. Review co-location proposals carefully to ensure that sites are not “over-committed” and could end up exceeding a realistic capacity for the site. In some cases the drive to co-locate can consume the passive and informal opportunities of a site.

Case studies and references relevant to this principle are:

Trinity Beach Skatepark
Half Moon Bay Golf Course
Local Area Open Space Plans

4.35 Non-motorised Recreation Trail Network

In many communities, there is significant demand for opportunities for horse riding, bicycle riding and walking. Some of this demand focuses on exploring the landscape, some focuses on exercise and fitness, whilst some results from the challenge of covering distances at speed. Demand is also created by the use of cycling and walking as legitimate modes of transport, to get to and from shops, work or school.

Regardless of the motivations of participants or users, all of these activities rely on a network of safe and attractive recreation trails. Such a network could have many components including:

- cyclepaths;
- quiet rural roads;
- quiet suburban streets;
- footpaths;
- stock routes;
- unformed roads;
- fire breaks;
- municipal parks;
- floodways;
- walking tracks;
- bridle paths;
- canoe trails; and
- pedestrian precincts (eg malls).

The key issues in planning, designing and managing non-motorised trails are:

- safety;
- utility;
- attractiveness;
- protecting the trail/s as entities in the landscape; and
- protecting all open space values of the corridors surrounding the trails.

Safety always involves controlling motorised vehicle speed and/or access. Other safety considerations include lighting, fencing, signage, speed controls and the quality of the track/trail/path surfaces.

Utility refers to the usefulness of a trail or network of trails. Trails which connect residential areas with shopping centres, places of employment or education, other transport networks, community services and facilities, large areas of open space, recreation areas and scenic, cultural or historic features are more likely to be used than those that do not provide such connections.

Attractiveness is derived from a complex mix of factors. Safety and scenic quality and diversity safety are probably the key factors for most users - but there are others such as environmental quality (eg air and water).

Protecting recreation trails as functioning entities is not easy. Of the other trail network components listed previously, only roads and stock routes are recognised legally.

Roads used as recreation trails are not protected by law. They can be converted by administrative decision to high speed motorised transport routes that are neither safe nor attractive to use for recreation.

Stock routes are also roads that have been declared stock routes by regulation. Consequently, local government planning schemes are the only available options for identifying and protecting most non-motorised recreation trails.

For non-motorised recreation trails to function, it is essential local government planning schemes protect them from fragmentation and from being subsumed by other land uses or transport modes. These trails could be supported in planning schemes through the strategy statements, objectives and implementation statements.

Cyclepaths for commuters should provide direct links between residential areas and major activity centres. The design of pedestrian paths, bridle paths and cyclepaths should minimise conflicts between the pedestrians, cyclists, horses and vehicles.

The development of pedestrian pathways and cyclepaths which provide links between residential areas, shops, community services and facilities, recreation areas, schools and transport interchanges is supported.

The provision of a sufficient number of secure parking facilities for bicycles at these destinations is encouraged, to support usage. Where possible, the links should be based on linear open space (rather than relying totally on the local road network) and linked to other open space areas. Where it is not possible to utilise linear open space, the use of traffic management principles to slow vehicular speed and street design principles to facilitate safe pedestrian and cycle use is encouraged.

In urban areas, the open space system may be utilised to establish a network of recreational walking and cycling paths. These types of pathways are seen to be an integral part of the total open space system and provide a safe means for connecting various sectors of the community, as well as connecting people to recreation opportunities.

Figure 4-17 over the page illustrates a walking track.

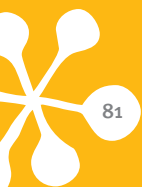


Figure 4-17 Non-motorised trails



4.36 Implementing Non-motorised Recreation Trail Network

Discussion of Planning and Implementation Issues:

Non-motorised trail networks can be comprised of land and water based linear linkages. The development and protection of these networks requires coordinated planning and management. Identifying potential networks in the strategic stages of preparing a planning scheme for a local government can assist in protecting potential links from severance or inappropriate use and in preparing a future works program based on increasing demand from expanding urban areas.

Note that areas controlled by State agencies (eg National Parks, State Forests, Marine Parks etc) will be outside the planning responsibilities of local government. These areas are usually managed by State agencies (and corporations) with specific statutory obligations. Where recreation trails are contemplated across areas controlled by State agencies, local government planners must consult with the relevant State agency or corporation to obtain at least agreement-in-principle to the proposed trails. After this has been obtained, a cooperative partnership between all relevant groups can be formed.

There are four main types of trails:

- Waterways, floodways and drainage lines;
- Bikeways, bikepaths and constructed pathway networks (which may include foreshores and promenades);
- Historical or legal routes (eg. stock routes, Bicentennial trail); and
- Formal and informal trails and paths in open space areas.

These types are not mutually exclusive and often coincide. *Example: a constructed bikeway along a creek bank which is part of a district park area.* However each type offers some unique opportunities and may require different approaches in the three areas of planning the network, managing the infrastructure and managing users/ use of the trails.

Related Principles:

- Natural Landscape Features
- Waterways and Riparian Corridors
- Open Space Fragmentation and Connectivity of Recreation Areas.

Implementation Measures:

Planning issues include:

- Access points for use of the path or waterway. *Example: a canoe trail requires access for canoes, car parking near by, hardening water side access points (eg. pontoon or ramp).*
- Public safety. *Examples: level of visibility/casual surveillance of pathway. The need to separate users eg. walkers, cyclists and roller bladders.*
- Main purposes of link/ trail. *Examples: commuter, recreational or just access to recreational sites.*
- Identification of potential congestion points. *Examples: road crossings/bridge works, culverts, stormwater outlets and treatment measures (eg. gross pollutant traps), eroding banks, residential encroachment and flood mitigation measures (eg. concrete channels, steep sides, low flow pipes).*

²¹ See ANZECC (2000) National Water Quality Management Strategy Australian and New Zealand Guidelines for Fresh and Marine Waters Quality, Draft Guidelines Volume 1. Prepared under the auspices of the Australia and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand, Canberra.



- Suitability of corridor for trails. *Example: for canoe trails the major factor is water quality suitable for secondary contact²¹ and the ability to maintain that quality or better.*
- There is usually a need to plan across multiple tenures and the need to negotiate with multiple landholders and stakeholder groups. This may involve consideration of issues for adjacent land. *Example: ensure new residential developments do not unintentionally sever a network linkage.*

Infrastructure management issues include:

- Avoiding limited access for maintenance crews or machinery. *Example: a poorly planned corridor with only narrow access corridors at wide intervals increases cost and difficulty of maintenance.*
- Stabilising creek banks from in-stream erosion and erosion caused by the trail network.
- Ensuring adequate maintenance of the trail/ path network and maintenance appropriate to the path type. *Example: concrete paths and bikeways are expected to be level, free of cracks and free of debris while an informal bush trail is anticipated by users as “rough”.*
- The value of some networks (eg. bikeways) is not fully realised until sequential links are constructed. Capital budget constraints sometimes mean that only small parts of networks are constructed/established. To maximise benefit, sections of the path network should be prioritised for recreational value as well as commuter/linkage value.

Use management issues include:

- User direction and signage. Any trail network or trail section needs to have appropriate user guidance regarding directions, access points and behaviour. *Example: in the case of canoe trails or bush trails safety information may be critical in the case of emergency.*
- For larger trail networks the production of maps and guides is a critical part of making the trails or paths accessible. *Examples: programs which encourage people to use bikeways will help increase benefits for the community. Brochure identifying access points to canoe trails.*
- Managing safety. There are several aspects to this issue. The design and layout of any trail or path system should consider ease and cost of maintenance (in particular frequency of maintenance visits required). Design issues need also to consider the flow of users and potential hazards from mixed use. *Example: shared pedestrian/bike paths need to be much wider than pedestrian paths and have “swerve space” adjacent to the path. In addition the interaction of any path with other transit lines or land uses can pose risks. Example: bikeways through parks should be located to keep path users out of active (game playing and playgrounds) areas, away from focus points like barbecues and avoid intersection with pedestrian access lines from car parks or to key features like water ways or toilets.*
- People safety. This means consideration of CPTED²² principles in design as well as issues such as lighting, slow points for intersections, barriers, advisory signage, clearing of fringing vegetation and management of negative user behaviour.

Case studies and references relevant to this principle are:

Ipswich Canoe Trail
Half Moon Bay Golf Course
Rafting Ground Reserve Master Plan

²² Crime prevention through environmental design

4.37 Waterways and Riparian Corridors

Waterways include rivers, creeks, estuaries, dams, lakes, waterholes, swamps and wetlands - all of which are usually open space features. They have very variable characteristics. Some waterways (eg. rivers and creeks) are long lineal features while others (eg. Lakes Eacham and Barrine) are isolated features in the landscape. Depending on the climate and terrain of an area, waterways can be permanently flowing streams or temporary swamps or permanent lakes, high volume, fast flowing water or dry streambeds, steep mountain creeks or estuaries, fresh water or salt water. Waterways may also be natural or built features of landscapes.

Riparian corridors (ie. the land adjacent to waterways that has been shaped by water) may include stream banks, lakeshores, flood plains and levee banks. These also have very variable features. In steep terrain, riparian corridors can be narrow (ie. less than 50 metres wide) while big rivers in flat areas may have flood plains that are many kilometres wide. They may, or may not be, open space features, depending on the degree of built development that has occurred. Land close to waterways is often significantly different in colour, form and texture (eg. the vegetation is taller and denser) from other areas. Like waterways themselves, riparian corridors may be natural or built features of landscapes.

Waterways and their associated riparian corridors tend to have a greater range of values (eg. recreation, nature conservation, scenic amenity, agriculture, cultural heritage, water supply, transport and real estate) and to be more significant for each individual value than other parts of the landscape.

Compared to the rest of the landscape, waterways and their riparian corridors are often more dynamic and interesting recreational environments. Given the choice between otherwise equal places, most people will usually choose places which are close to water, rather than places without water features, for many human activities - including many forms of recreation. For example, if there is a choice between a picnic area with access to a water feature (eg. river, creek, waterhole, waterfall, shore line, lake, canal or pond) and an otherwise equivalent picnic area, most people will choose to picnic beside the water feature. Similarly, most people will choose to camp beside water features if they have a choice.

The same choices are frequently made in non-recreational decisions. Real estate with direct or relatively close indirect access to waterways or views of water is often more expensive than other parts of the landscape. Some people will even tolerate periodic flooding of their homes to live beside waterways. In rural areas, riparian land can mean access to water for stock and, provided a landholder has the relevant authority, irrigation as well as more productive alluvial soils.

From a planning perspective, waterways and associated riparian lands are usually prominent lineal landscape features which require recognition and different treatment from other areas. This is partly because of the increased range of values they have, partly because of increased competition between different land uses and partly because they have particular physical characteristics that are determined by water.

More particularly, from a recreation planning perspective, waterways and associated riparian lands present opportunities for lineal corridors for both water-based (eg. swimming, canoeing, kayaking, rowing, sailing, skiing, fishing from boats, etc) and land based (eg. walking, cycling, picnicking, camping, horse riding, fishing from the land, adventure play and exploration by young children, etc) recreation activities. These lineal recreation corridors may provide links between other open space features such as urban bushland, sports fields, non-riparian corridors (eg. stock routes, utility easements and unformed roads) and municipal parks and gardens which might otherwise be isolated and, consequently, less attractive, accessible and useful for recreation.

Waterways and riparian corridors are major parts of the landscape and major structural features that significantly affect development planning. Recreational land uses tend to be shaped by terrain in general and by waterways in particular. Consequently, waterways can provide a logical and convenient structure for recreational open space networks. Non-recreational land uses are also shaped by terrain in general and by waterways in particular. Since both recreational and non-recreational land uses are shaped by waterways, these features provide one option for a spatial structure to integrate recreation with other land uses. Spatially organising open space networks around waterways and riparian corridors may also provide an opportunity to maintain connectivity of open space networks (refer to Connectivity of Recreation Areas) over relatively long distances.

However, identifying, protecting, re-creating and maintaining a lineal open space network based on waterways may present considerable challenges. Lineal open space networks along waterways may cross from one local government area to one or more others. This necessitates coordinated planning between all of the local governments in order to ensure development and/or continuity of the network. Refer to Cross-boundary Strategic Planning.

Open space networks with value for recreation and sport (and especially those along waterways because of their potential for non-recreation land uses such as residential development and transport) require active protection from decisions to fragment those networks. Refer to Open Space Fragmentation and Connectivity of Recreation Areas.

As well as being subject to local government planning schemes, recreation activities and infrastructure on waterways and their associated riparian corridors can be covered by complex planning and management responsibilities derived from the tenure of the land and/or the legal responsibilities of particular government agencies. Bringing recreation outcomes through this complex planning and management environment requires coordinated planning, attention to detail and resolution of sometimes contentious issues.

Opportunities to re-create the links for recreation and sport between unconnected open space areas along waterways can occur through reviews of planning schemes and development approval processes. Some local governments have taken advantage of urban redevelopment/recycling/renewal processes to re-construct lineal public open spaces along waterways and foreshores. Refer to Redevelopment/Recycling of Land for Recreation and Sport.

Like other significant physical features of landscapes, open space waterways and riparian corridors should be identified, secured and protected in planning schemes and actively managed to integrate recreation with non-recreational values or potential uses.

Where open space networks associated with waterways and adjacent riparian lands have been fragmented by previous development or land use decisions, planning schemes should seek to reconstruct links along the waterways between otherwise unconnected open space areas.

4.38 Implementing Waterways and Riparian Corridors

Discussion of Planning and Implementation Issues:

Waterways (creeks and rivers) are an integral part of an open space system in any local government area. As major parts of the landscape and structural features which significantly affect development planning, waterways provide a framework around which an open space network can be developed. Waterways have multiple values including environment, recreation, community, cultural and economic. For recreation they can provide recreation space, recreation trails, contribute to recreation settings (eg. in adjacent parkland), and provide buffers between recreation land and other land uses. Planning for waterways protection and management is a complex issue. By far the most important issue is to undertake planning for waterways as a system in their own right. To attempt to protect and plan for waterways as part of other elements (eg. parks, flooding) does not recognise the range and diversity of values and issues associated.

Waterways can:

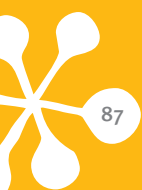
- Protect habitat and habitat corridors. This includes providing important linkages between remnant natural areas, forested slopes and wetlands.
- Protect aquatic habitats including local “in-stream” habitat and larger systems such as mangrove wetlands, river systems, bays and dams.
- Provide for flood and stormwater management.
- Provide trails both land and water based.
- Enhance scenic amenity and provide relief from urbanisation and the developed landscape.
- Act as buffers between development and different land uses.
- Provide recreation space for active and passive recreation opportunities.
- Complement recreation and landscape settings in adjacent open space.

However the protection and management of waterways and riparian corridors needs to be planned to allow a diverse range of recreation opportunities. This requires an integrated approach which considers the following:

- Pressures of urban development to maximise developable space means that opportunities to provide for recreation in waterway corridors are often minimised or completely lost based on design solutions for stormwater/flooding only.²³
- Inappropriate upstream and downstream treatment of waterways can reduce the value of protecting riparian and other values of a section of waterway. A “whole of creek” approach is needed to ensure that protection of a waterway corridor in one section is not diminished by modification up or down stream.
- Poor erosion and sediment control during construction of a subdivision or housing construction can compromise water quality and damage recreation values.
- Poor treatment of waterway crossings (eg. road bridges) can sever habitat and pathway corridor functions.

It should be noted that infrastructure to support recreation pursuits must be carefully located to minimise any adverse impacts on biodiversity and environmental values.

²³ Simply put, a deep concrete channel can carry flood waters within a much narrower corridor than a naturally vegetated and naturally curving creek corridor.



Related Principles:

- Multiple Uses of Open Space
- Compatible Recreation Activities
- Sustainability of Recreation
- Recreation Setting Diversity.

Other Implementation Measures:

1. Preparation of a waterways strategy which includes protection and enhancement of recreational values.
2. Preparation of a design/planning guide for waterways.
3. Development of a program to review all waterway corridors and develop trails where possible.
4. Implement a project to “recover” or rehabilitate some waterway corridors so that amenity is improved and any pathways or trails are enhanced. Similarly restoration of riparian amenity can greatly enhance adjacent park/ recreation settings.

Case studies and references relevant to this principle are:

Ipswich Canoe Trail
Wet Tropics Walking Track Strategy
Rafting Ground Reserve Master Plan

Figures 4-18 and 4-19 over page show different waterway corridor treatments.

Figure 4-18 Waterway treatment that does not complement adjacent open space



Figure 4-19 Recovery of “drainage channel”- reconstruction as waterway partially completed.



5. Case Studies and Examples

5.1 Lake Belmore, Croydon Shire

Relevant principles:

Multiple Uses of Open Space
Recreation and Sport in Rural Areas
Waterways and Riparian Corridors
Recreation and Adjacent Land Uses

Regionally Significant Open Space
Tourism and Outdoor Recreation
Facility Location/ Co-location

The development of Lake Belmore into a local and regional multi-use recreation and sport destination over the last year has revitalised the community. As a result of funding from the Sport and Recreation Queensland (SRQ) Minor Facilities Funding Program, Lake Belmore has been developed to provide:

- skiing
- swimming
- canoeing
- fishing/boating
- a pontoon
- a multi-use ablution/kitchenette/public telephone block
- a picnic and electric barbecue and shelter
- drinking water/showers
- a children's play area
- ring road access
- safety barriers
- landscaping to reflect the unique character of the site.

Through the same program the township of Croydon has also constructed a lawn bowls facility and an indoor cricket venue.

In light of trends seeing many rural communities in decline, the rural community of 200 is now experiencing a new sense of purpose. The new facilities have given way to a range of local programs both indoor and outdoor as well as attracting regional events. Plans for walking/cycling pathways linking the town and Lake Belmore are also proposed in response to a growing interest by the community. The town's self esteem and economy is benefiting from increasing seasonal tourism attracted by the high quality facilities at Lake Belmore.

The developments at Lake Belmore and in the township resulted from community consultation and a process of monitoring the facilities' success is conducted annually through the release of the corporate plan where input from the community is intended to guide future planning of the area.

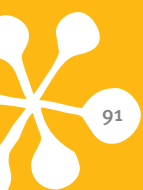
This case study identifies the benefits of developing high quality recreation and sport facilities in rural areas as:

- Raising the morale of the local community by acknowledging that its need for quality recreation and sport facilities is equal to that of city dwellers.
- Providing new recreation and sport opportunities for a wider regional catchment, with communities from Georgetown and Normanton willing to travel up to 200 km to Lake Belmore to ski, fish or play.
- The social and economic advantages of attracting increased tourism.
- The spin-offs of a full-time recreation and sport administrator and an increased range of indoor and outdoor programs available to the local community.

This case study also identifies future challenges as:

- Maintaining the environmental integrity of Lake Belmore as visitation and interest in overnight stays increases.
- Responding to future community demand for additional recreation and sport experiences on site.

Contact: Croydon Shire Council, Sport and Recreation Officer, Telephone 07 4745 6185



5.2 Regional Landscape Values - Guidelines for their protection in local government planning schemes in SEQ

Relevant principles:

Natural Landscape Features
Regionally Significant Open Space
Regional Recreation and Sport

The document makes reference to the values of regional open space as endorsed by the Regional Framework for Growth and Management 1998 (RFGM) and states,

“...an integrated regional open space network has the capacity to enhance the quality of life of all of the inhabitants of a regional and will help to foster environmental awareness and socially and economically healthy communities”.

The Regional Landscape Strategy (RLS), defines regionally significant open space as that:

- Contained within public land including National Parks, State Forests, State Reserves and major local government reserves.
- Private land with agreement of the land owner.
- Land acquired for regional open space purposes.
- Land designated by local governments as having regional significance as open space in local planning schemes.

Once identified in the local government planning scheme, the RLS suggests using the planning scheme to detail Desired Environmental Outcomes as part of a process of protecting regional landscape values.

The RLS provides examples of suggested provisions for planning schemes which cover:

- enhancing biodiversity and the environment
- conserving high land and water value
- enhancing scenic amenity
- conserving cultural heritage and socially significant values
- enhancing outdoor recreation opportunities
- enhancing urban area amenity
- promoting coordinated open space.

It also provides details each of these planning measures including a glossary of terms, performance indicators, current planning and management practice, management strategies and assessment criteria.

Contact: Department of Natural Resources and Mines, GPO Box 2454, Brisbane, 4001 or Environmental Protection Agency, PO Box 155, Brisbane, 4001. Phone your local regional office.

5.3 Wet Tropics Walking Strategy

Relevant principles:

Tourism and Outdoor Recreation
Cross Boundary Strategic Planning
Non Motorised Recreation Trail Network

Recreation Setting Diversity
Recreation and Adjacent Land Uses

The Wet Tropics Walking Track Strategy complements the Wet Tropics Management Authority's (WTMA) Nature Based Tourism Strategy (2000) which provides broad policies and strategic directions for the future management of nature based tourism and recreation in the Wet Tropics. It has been developed to guide the future development and management of a range of walks throughout the Wet Tropics region.

The strategy includes walking tracks in seven local government areas:

- Cook Shire
- Mareeba Shire
- Cairns City Council
- Atherton Shire
- Herberton Shire
- Johnston Shire
- Cardwell Shire.

And in so doing emphasises the following specific issues relating to planning, management and implementation among a number of regional agencies and their communities:

- Establishing a representative advisory group to provide expert advice and to assist in implementing the strategy.
- Establishing a coordinated management system to enable different government agencies, local councils, interest groups eg. regional Indigenous representatives, the tourism industry and walkers to work together to achieve agreed goals.
- Visitor demand and impacts will be researched and monitored to ensure sustainability and that visitor needs are met.
- Ensuring walk, walker and regional diversity recognising the need to expose the attributes unique to the region and to satisfy the range of walker interests and capabilities.

The regional strategy also takes advantage of the opportunity to highlight less visited destinations in the Wet Tropics World Heritage Area thereby contributing to sustainability of the overall region, exploring different recreational settings and sharing the economic benefits of increased visitation to areas outside of the main tourist destinations.

Contact: Wet Tropics Management Authority (WTMA), PO Box 2050 Cairns Qld 4870 or call the WTMA office on 07 4052 0555.



5.4 Park Planning Performance Criteria

Relevant to the following principles:

Open Space Standards/Planning Performance Criteria
Charging for Public Parks Infrastructure/Priority Infrastructure Plans
Recreation Setting Diversity

Performance Criteria for recreation and sport land form the basis from which future demand for recreation, sport and open space will be calculated, acquired and developed. They relate to Standards of Service which are required by the *Integrated Planning Act 1997* to be included in open space lands and in the preparation of Priority Infrastructure Plans. The performance criteria used in this case study are provided as a generic example based on those currently being applied by a number of local governments in Queensland. The criteria emphasise:

- Holistic planning rather than strict adherence to a standards approach
- The need to sometimes trade-off quantity of park for quality of park
- Safety
- Quality of land and facilities
- The objective to maximise the range of opportunity where appropriate
- The need to consider both capital and maintenance costs of public recreation land to both the local government and to the community.

It is recommended that officers from various discipline areas within council, including engineering, town planning, parks, recreation and community development, are involved in formulating Park Planning Performance Criteria for a specific council. The resulting performance criteria or standards of service for a specific local government area should be discussed and supported in an Open Space Strategy. **This case study provides a guide only.**

Criteria	Performance measurement		Comment
	Informal parks	Sporting Parks	
Minimum level of supply	2 ha / 1 000 persons	2 ha / 1 000 persons	Acts as a broad measure of supply across neighbourhoods and catchments.
Minimum size of parks	0.5 - 1 ha (local) 3 - 5 ha (district)	1.2 - 2 ha (local) 5 ha (district)	Upper limit is the preferred minimum size, which allows more flexible use and cost efficient management. Local sport park may be 1.2 if integrated with other open space.
Access and visibility: <ul style="list-style-type: none"> Distance from any residence to park Park boundary Constraints Cycle and pedestrian access Accessibility Visibility 	Local - 500 m District - 3 km Min' 50 % road frontage Local Parks shall not be separated from catchment by physical barriers (eg. main roads, creeks). Must provide for safe and convenient access. <i>Location and park landscape should maximise access for people with mobility difficulties.</i> Visibility from neighbouring residences should not be impeded by design, vegetation or buildings.	Local - 500 m District - 3 km Min 50 % road frontage. Local Parks shall not be completely separated from residences by physical barriers (eg. main roads, creeks). Must provide for safe and convenient access. Location and park landscape should maximise access for people with mobility challenges. Visibility of car parks, entry points and play areas is important. District sporting fields require buffering from residential areas to minimise impacts from noise and night lights	Substantial road frontage is crucial in local parks to ensure access and good community surveillance. Location and urban design must provide for multi- mode access to local and district parks Park should be centrally located. Buffer design should complement the park area and enhance residential amenity.
• Shape	<ul style="list-style-type: none"> Should allow for a range of uses (eg. informal sport). Minimum access corridor widths of 10 m. 	<ul style="list-style-type: none"> Regular shapes critical. Minimum radius for oval is 60-70 m (many LGA's consult with the local field sport groups for consensus). Must consider multiple use of fields and ovals. Configuration should allow for passive uses of the perimeter and ancillary uses (eg. sheds and storage). 	<ul style="list-style-type: none"> Long narrow parks are generally unacceptable unless they are proposed as a linkage or as part of a corridor linking larger park areas. Preferred design is for park nodes, which may be linked by other open space components such as waterways. Integrating local sporting parks with informal parkland and local community facilities is desirable and becoming more the model with many local governments.

Criteria	Performance measurement		Comment
	Informal parks	Sporting Parks	
<ul style="list-style-type: none"> Land quality 	<ul style="list-style-type: none"> Maximum slope is 1:4. Land can not be constrained by hazards (eg. power lines, conservation, contamination). Generally free of flood constraints. Suitable for intended purpose (eg. generally flat and useable). Must not require above average development costs. Max 30% of park constrained. 	<ul style="list-style-type: none"> Maximum slope is 1:200. Land can not be constrained by hazards (eg. power lines, conservation, contamination). Generally free of flood constraints. Suitable for intended purpose (eg. generally flat and clear). Must not require above average development costs. District parks must be able to provide for built development as well as multiple use fields. 	<ul style="list-style-type: none"> Special provisions apply to land quality. Land with certain constraints may be acceptable at a discounted rate. The purpose of quality criteria is to minimise development and maintenance costs to the community and to ensure long term flexibility in use of park.
<ul style="list-style-type: none"> Diversity of settings 	<p>A range of landforms should be used for informal parks. Linkage with natural areas, waterways and foreshores will provide diversity of settings. Provide opportunities for use of local and district viewscales and landscape features.</p>	<p>Sporting parks can be integrated with other open space, community facility development and facility precincts</p>	<p>Within local and district catchments a range of settings and opportunities should be provided. For example:</p> <ul style="list-style-type: none"> Cycling and walking tracks within and linking parks Formal and informal sporting areas Shaded Playspaces Shaded Picnic areas Views, local features and scenic areas Recreation facilities Beachside/ creek side parks Natural vegetation Ornamental landscapes
<ul style="list-style-type: none"> Minimising cost 	<ul style="list-style-type: none"> Selection of preferred park sites should consider: Land which may be constrained for residential use and is cheaper to acquire. Land which will not require substantial improvement to be suitable for use. Shape, landform and access that minimises future maintenance costs. Co-location of facilities and integrating park and other open space will maximise savings from sharing of facilities and services. 	<ul style="list-style-type: none"> Selection of preferred park sites should consider (in addition to the previous column): Larger sizes to allow for greater shared use and co-location. Integrating district sporting areas with other community, retail, service and transport nodes. Suitability for construction of fields and facilities. 	<ul style="list-style-type: none"> The main purpose is to ensure the cost to the community is minimised without compromising on quality and functionality of parks. Potential costs associated with park management should consider 3 areas : <ul style="list-style-type: none"> Acquisition Development Maintenance.

5.5 Mt View, Thuringowa

Relevant to the following principles:

Multiple Uses of Open Space

Mt View Park is located within a detention basin²⁴ and was developed as a district level park during 2000/2001 by a multi-disciplined team comprising a council engineer, town planner and parks manager.

For approximately 11 months of the year, the site offers flood free access to a range of informal sport and recreation spaces including:

- walkways
- centralised play spaces
- 3 distinct kick-about areas and
- shaded barbecue nodes
- drinking water.

High use and community expectation of high levels of maintenance, including full irrigation systems, contribute to equally high maintenance costs. However the council consider Mt View Park to be a success as it provides an accessible, high quality district park for a diverse range of users and for a minimum amount of time provides critical stormwater management.

Contact: Parks Manager, Thuringowa City Council

Detention basin and multiple use issues

While the multiple use of a detention basin for public park can be successful there are a range of critical design issues which must be considered:

- The rate of inundation or filling of an area must be slow and present no hazard to users.
- The duration of water storage should be short so that park space is not “lost” for long periods to temporary lakes.
- Subsoil drainage is usually required to ensure the park can be used within a reasonable time following inundation.
- The design of basin sides and access routes needs to consider the hazards created near water inlets and outlets as well as the need for users to be able to exist easily. For example steep sides are generally undesirable.
- The quality of the inflowing stormwater can have significant effects on the park area with siltation and other (possibly hazardous) residues requiring a significant remediation cost after any flood event.
- Council should carefully consider the recurrent costs associated with dual use of detention basins, particular the cost of infrastructure maintenance and post flood clean up.
- While dual use can work it is not always a desirable solution and the need to have detailed design guidelines is paramount. Otherwise councils can inherit parks, which are more costly to maintain and in effect the park maintenance budget is used to support stormwater management infrastructure. This can be less efficient economically than development and maintenance of park lands which are not stormwater control mechanisms.
- In locations where there is a limited supply of land and a high demand for parks then retroactive modification of detention basins and overland flood ways may provide additional park opportunity.

²⁴ The purpose of a detention basin is to store or retain stormwater. In some cases the design requirements may call for water to be slowed down prior to discharge into a creek system.

5.6 Trinity Beach Skatepark

Relevant to the following principles:

Multiple Uses of Open Space
Compatible Recreation Activities
Facility Location/Co-location of Facilities

The search for a suitable location for a multi-use skate, BMX and rollerblade park began in Cairns in 1999 and ended in 2001 when the 30m x 18m park was officially opened at Centrals AFL, Trinity Beach.

It appears that “compatible recreation activities” can be a subjective term requiring considerable discussion with stakeholders to determine if facilities and activities are indeed compatible.

Council’s preference for sport and recreation facilities to be co-located with existing facilities including an indoor sport and recreation centre, public swimming pool, council child-care centre and library, to establish a community service and leisure precinct was challenged by a number of community issues:

- Siting the facility too close to the council’s childcare centre was a perceived threat to the well-being of the children in care.
- Siting the facility adjacent to the council leased swimming pool raised some safety concerns for the current lessee.
- Proposals to incorporate the skatepark within the council pool boundary challenged the principle of equity and access.
- Making the decision as to where else to locate the skatepark and completing the planning in time to meet the funding application deadline.

The solution was to consider the site alternatives again and in turn approach the Centrals AFL Club, already the centre for football codes, soccer, baseball and licensed premises providing bar and dining facilities and poker machines. While the site was leased from council, the fields and clubhouse are operated by a management committee in association with the sporting codes represented there.

Centrals AFL is located within a residential area but is adequately buffered from residents by a minimum of 500 metres.

In consultation with the management committee, council representatives and the skatepark planning committee, a site within Centrals AFL was identified, the funding application completed and the funding obtained from the SRQ Minor Facilities Funding Program.

The advantages of co-locating the skatepark at Centrals AFL include:

- The venue has onsite management between 9 am and midnight weekly and later on weekends and hosts a range of sporting events that can continue until late most evenings.
- The venue is well buffered from residents.
- The site is large enough to adequately separate each sporting code while offering a consolidated range of opportunities.
- Support facilities including toilets, drinking water and lighting and public transport are established and can be used by the skaters, their families and friends.
- Non-conventional and conventional sports can effectively share space, encouraging cross-participation.
- The skatepark increases the range of opportunities available to members, parents dropping children off for sport, skaters and their audiences and younger and older siblings.

Disadvantages identified so far include:

- Co-locating BMX dirt bikes with skaters, rollerbladers and scooters is causing some grief to all parties. BMX bikes can spray dirt onto the skatepark, rendering the area unsuitable for skaters. A good broom does the trick but does little to quell the impatience of youth. Proposed design solutions to reduce dirt drift include separating the two uses however locating dirt jumps and the skatepark within the same precinct, bitumen surfacing on the skatepark and blue granite or similar boundaries around the skatepark.

Contact: Precincts and Facilities, Cairns City Council, Telephone 07 4044 3334.



5.7 Green Island

Relevant to the following principles:

Tourism and Outdoor Recreation
Sustainability of Recreation

Green Island is located some 20 km off the coast of Cairns and is accessible by regular boat transfers from the mainland. The island is Crown land and all but the esplanade is under the control of Queensland Parks and Wildlife Service (QPWS). The esplanade is managed by Cairns City Council (CCC). There are also numerous individual leases held by both commercial and public agencies, administered by QPWS or CCC.

Green Island offers a range of outdoor recreation opportunities to both visitors and locals however, the island is regarded by the regional resident community as a tourist destination and so, according to CCC data, attracts proportionately less locals. Further, there are alternative destinations frequented by locals which are considered more natural, more easily accessible and less costly on the mainland.

The activities on the island focus on aquatic experiences and include:

- commercial dive tours
- underwater observatory
- beach and water sport equipment hire
- a crocodile habitat farm
- interpretative centre
- Green Island resort facilities and activities
- shops and catering outlets
- boat transfers
- heli pad
- aqua plane.

There is a cooperative approach to managing the island guided by a Reef Activities Management Board, with the specific interests of Green Island managed by the Green Island and Reef Advisory Committee (GIRAC). CCC together with other government agencies including QPWS and the Department of Primary Industries and commercial stakeholders comprise the GIRAC and it is through this forum that the main issues of management are raised and addressed.

In stark contrast to the perception of the island by locals, the main management issue for CCC is the lack of regulations imposed on visitors to Green Island and the consequent threat to visitor safety. While CCC recognise the importance of marketing a carefree holiday atmosphere to all visitors, it would like to exercise greater caution on behalf of visitors by, for example, designating bathing reserves and installing rest stations for those snorkelling and swimming. CCC would also encourage safe swimming and beach behaviour by effecting local laws by way of signage.

In response to this case study, CCC emphasised that the existing regime of self regulation by the commercial operators and outlet managers on Green Island is effective. Council recognise that the best way of enacting responsive management is to remain active on the GIRAC.

The management approach on Green Island poses some conflict with council's role to enforce local laws for the benefit and safety of users. In response, council maintains a representation on the GIRAC to raise issues and to assist in devising solutions.

5.8 Half Moon Bay Golf Course

Relevant to the following principles:

Multiple Uses of Open Space
Compatible Recreation Activities
Facility Location/ Co-location

Redevelopment/ Recycling of Land
Waterways and Riparian Corridors
Recreation and Adjacent Land Uses

Half Moon Bay Golf Course is situated at Yorkey's Knob, a Cairns' Northern Beaches community. The course is open to public play but is a club managed course with mixed land tenure including, freehold, lease and trustee lease.

The golf course is an important part of the recreation infrastructure for the northern beaches communities which, collectively, are expected to grow to more than 50 000 residents in the next 10 years. The golf course is ideal as part of a recreation precinct, located to serve resident and visitor needs.

The golf course occupies land which is adjacent to other sporting facilities, public park, community facilities, Half Moon Creek fish habitat reserve and Half Moon Bay Marina. The design of the course incorporates considerable areas of wetlands and lowland rainforest as well as informal open space areas around the margins.

There are several significant features of the course and the general precinct which demonstrate implementation of planning principles:

- Part of the course is constructed on a remediated landfill site. This has been a good partnership as council undertook the remediation works and the club developed the greens allowing the course to become a full 18 holes.
- A section of waterway/ wetland area adjacent to the course (part of a reserve) has been modified to receive secondary treated effluent from a nearby Sewage Treatment Plant. The effluent is only released when water levels reach a certain level of decline. This water is used for irrigation of the course during the dry season.
- The course provides a number of informal pathways to the Half Moon Bay beach and around the course generally. These are used frequently by local residents for walking and walking the dog and the course complements the other adjacent public open space to help form a diverse range of settings for walking activity.
- The course is co-located with several other community and sport or recreation related facilities and forms a node of recreation opportunities with everything from club/commercial setting to the undeveloped natural setting of the Half Moon Creek reserve.
- A golf course is very compatible use for adjacent wetlands, parks and foreshore areas and assists in the protection of natural habitats by providing buffers to other development.
- The course is also well buffered from most of the adjacent residential use by adjacent parks, open space and roads. The only exception is a small stretch of road that is narrow and is probably insufficient as a buffer to protect from the odd stray ball.

Contact: Cairns City Council - Precincts and Facilities, Telephone: 07 4044 3334.



5.9 Local Area Open Space Plans (LAOSP)

Relevant principles:

Natural Landscape Features

Open Space Fragmentation

Open Space Standards/Planning Performance Criteria

Waterways and Riparian Corridors

Multiple Uses of Open Space

Recreation Setting Diversity

Recreation and Adjacent Uses

Facility Location and Co-location

Background

Cairns City Council began the process of preparing local plans for open space in 1995. The objective of the project was to identify service catchments or districts and then to plan for the provision of public open space (parks and sporting fields) for the existing and future communities of the catchment. The plans were designed to guide the acquisition and development of public open space as the catchment develops.

The LAOSP are prepared according to a set of performance criteria that include, quality of land, diversity of opportunity, accessibility and broad supply. The process used in the planning can be summarised as:

1. Review of the current form of the study area.
2. Analysis of constraints and opportunities.
3. Analysis of existing open space values including form, function and potential of existing parks.
4. Assessment of existing community need and supply of open space.
5. Identification of areas where environmental and cultural significance or planning issues (such as protection of waterways) will affect urban development.
6. Establishing likely future urban form, demographics and anticipated community need.
7. Addressing anticipated demand and supply.
8. Identification of a preferred open space plan for the catchment with a focus on public recreation land.
9. Consideration of co-location and access issues.
10. Development of a proposed acquisition plan.
11. Estimation of the cost of providing the land for additional parks and sporting fields.

The preparation of the local area open space plans enabled council to develop a strategic plan for provision of parks and sporting fields as well as provide the background and supporting information for the preparation of a Priority Infrastructure Plan as required for the new IPA compliant planning scheme. Figure 5-1 following this case study illustrates an example of Local Area Open Space Planning.

The preparation and implementation of localised plans such as this enable the following planning principles to be implemented:

- Recreation Setting Diversity - through ensuring a range of settings are provided in future parks.
- Natural Landscape Features - identification of features and proposals for protecting values.
- Open Space Fragmentation/ Connectivity - linking open space nodes to waterway corridors and planning for future parks to build on existing parks and networks.
- Open Space Standards/ Planning Performance Criteria - these were used as the basis for assessing the quality of existing supply and determining future supply of parks.
- Co-location of Facilities - planning for new sporting or park areas to be co-located with other facilities or community focus areas such as local shopping nodes.
- Recreation and Adjacent Land Uses - ensuring that parks and sporting fields are well located so as to minimise impacts on or from adjacent land uses.
- Waterways and Riparian Corridors - ensuring that defined corridors for waterways are identified and parks and access links are provided adjacent to corridors.

Comments

While the LAOSP have been successful in providing the information for the preparation of the Infrastructure Plans, implementation in other areas has not been consistent. Major issues include:

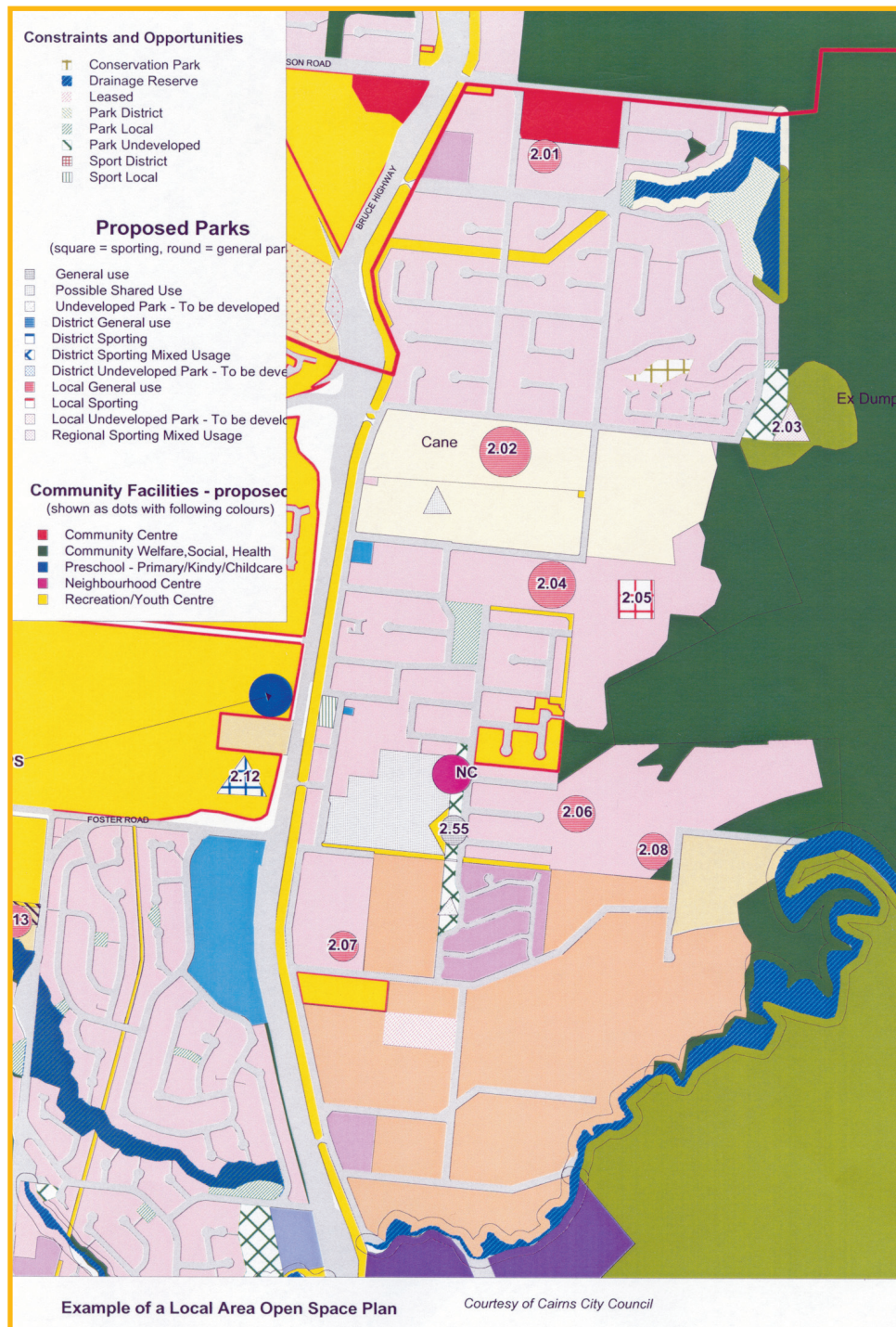
- As a long term strategic plan for community provision it is desirable to have community consultation in the preparation. Cairns is undertaking consultation on the plans as part of the wider consultation involved with the new planning scheme.
- Integration with development assessment processes were inconsistent and lack of awareness of the plans meant some opportunities were lost. This was in the period prior to preparation of the new scheme while mechanisms for inclusion under the now repealed *Local Government Planning and Environment Act 1990* (replaced by the *Integrated Planning Act 1997*) were being investigated.
- Plans such as this that go to local levels of detail need regular reviews to take account of changes in development trends and town planning environment.

Contact: Cairns City Council - Strategic Planning, Telephone: 07 4044 3527.

Numerous other councils in Queensland have prepared localised plans for open space both as strategic (non-statutory) guidance documents and as supporting documents for planning scheme preparation.



Figure 5-1 Sample of Local Open Space Planning



5.10 Rafting Ground Reserve Master Plan

Relevant principles:

Non-motorised Recreation Trail Network
Recreation Setting Diversity
Waterways and Riparian Corridors

Sustainability of Recreation
Multiple Uses of Open Space

Brisbane City Council prepared a Master Plan for Rafting Ground Reserve in 1996. The 13 ha park included land on both sides of Moggill Creek and was centred around a historical site which had been used to “raft” logs down the river for milling, during Brisbane’s early development.

The demand to prepare a Master Plan arose from community pressure as well as the perceived need to prepare a strategic vision for the development of the park in line with emerging community needs. The park had the potential to become a major destination park servicing the west Brisbane region.

The Master Plan was prepared using a detailed methodology including:

- Demographic analysis
- Inventory and analysis of surrounding park areas
- Detailed analysis of the park’s values (eg. ecological, historical, cultural, social)
- Extensive community and stakeholder consultation
- Landscape analysis.

Outcomes:

The resulting Master Plan provided:

- A landscape Master Plan for the park
- A draft works program
- A management program including objectives and targets
- Suggested enhancements such as interpretation and linkage to other open space components and the community.

Key management objectives included:

- Enhancement of the park to provide a significant recreation area for Brisbane’s west with a main focus on informal recreation and history.
- Promotion of the use of Moggill Creek for recreation both as a setting and for canoeing.
- Protection of a patch of remnant rainforest of city-wide significance.
- Conservation and enhancement of cultural and historical values.
- Interpretation of the natural, historical and cultural features of the site.



Implementation of Planning Principles:

The following Planning Principles were applied in this case study:

- Recreation Setting Diversity - planning for a range of settings within the park.
- Natural Landscape Features - identification of features and protection of values.
- Recreation and Adjacent Land Uses - ensuring that use areas were located to minimise impact on or from adjacent land uses.
- Waterways and Riparian Corridors - integrating waterway corridor protection with park provision
- Non-Motorised Trail Networks - providing for canoe trail use of Moggill Creek.
- Sustainability of Recreation - preparation of a master plan/ management plan to ensure recreation opportunities are sustained.

Comments:

While Master Plans provide an excellent basis for managing parks and planning development over a series of years they are subject to changing competitive priorities of a council's budget. The difficulty being to keep commitments to any staged development program.

In addition the process of consultation and the release of the plan can create significant expectation in the local community. Many councils have struggled to maintain implementation programs. Sometimes there is a misconception that the goal was the production of the Master Plan other than its implementation.

Contact: Brisbane City Council - Environment and Parks, Telephone: 07 3403 8888.

5.11 Willowbank Raceway

Relevant to:

Sustainability of Recreation
Regionally Significant Open Space
Regional Recreation and Sport

Recreation and Adjacent Land Uses
Tourism and Outdoor Recreation

Willowbank Raceway is a national standard motor sports facility on the outskirts of Ipswich City. The facility is currently located in rural land with mining adjacent to one boundary. In recent years some rural residential development has taken place in areas nearby and the noise impacts of the facility have been raised as an issue by new residents.

Demand for rural residential housing and the possible expansion of residential development close to the raceway has prompted the council to recognise the importance of the facility.

As the facility is already developed council is considering a 5 km zone surrounding the facility to ensure that any development that would be incompatible with the noise impacts of the raceway is constrained.

As part of a regional facility precinct council is also considering the complementary development that is desirable.

Adopting the above approach ensures sustainability of recreation through ensuring that surrounding development does not force the raceway into a position of being an unacceptable impact on new residential areas. The consideration of adjacent land uses has also identified that there may be compatible elements to service the facility which should be encouraged, such as short stay accommodation options for competitors.

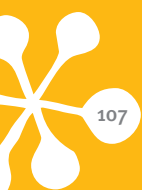
Ipswich City Council has recognised the regional significance of the facility and that it is in a desirable location. The strategic consideration of the role of the facility has allowed for planning scheme and other mechanisms to be used to protect the regional facility.

In addition the potential of the facility to attract significant visitation in terms of sports tourism (event competitors, other participants and spectators) means that complementary development of accommodation and service facilities will assist the raceway in its operation and support the local economy.

Comments:

Willowbank is an ideal opportunity for council to formalise a site for difficult to locate motor sports. Given the problems that can arise from such activities it is far more efficient to prevent development that may generate future conflicts than to be in the position of having to fund an expensive relocation and redevelopment 5 years into residential development too close to the facility.

Contact: Ipswich City Council - Conservation Parks and Sport, Telephone: 07 3810 6666



5.12 Ipswich Canoe Trail

Relevant to:

Non-motorised Recreation Trail Network
Waterways and Riparian Corridors

Multiple Uses of Open Space
Recreation Setting Diversity

The opportunity to develop canoe trails in Ipswich was identified in the city's Enviroplan which was a major strategic document for the management of the city's open space.

Following Council's endorsement of the Enviroplan work began on a Canoe Trails Strategy which was completed in approximately 1997. The strategy resulted in the main trails being developed along the Brisbane and Bremer Rivers.

The process used to develop the Canoe Trails Strategy and implementation plan involved:

- Assessment of all waterways for suitability, accessibility and navigability.
- Identification of launch points.
- Identification of trails based on sections or reaches of the waterways.
- Identification of sites for acquisition to improve access points and trail options.
- Development of an implementation plan including development of launch and access points and of complementary facilities in key parks.
- Preparation of an information and education program. Including signage and trail guide brochures.

The major application in this example is the use of waterways as a recreational setting.

Multiple use of waterways provide complementary landscape for passive recreation areas such as informal parks but are also able to provide active settings for canoeing and fishing and similar pursuits.

The development of the canoe trail means that the waterway also becomes part of a non-motorised trail network and provides for opportunities to enhance the uses of adjacent open space.

Comments:

The success of this project is probably related to the careful preparation of strategy and the considered planning that was undertaken to consider individual sites and secessions of waterway for suitability. The development of the facilities has also included pontoons designed for people with disabilities so that the opportunities are available on a more equitable basis.

Additional benefits of the pontoons and landing areas has been increased use for other reasons such as fishing or general enjoyment of the waters edge. This has expanded the range of settings available for recreation as well as enhanced the value of the waterways for many.

Issues that have arisen include the incidence of undesirable use (eg. late night loud parties etc) on some facilities. Responses to this have included restriction of access during certain hours as well as increased development of adjacent facilities to increase general use and casual surveillance.

Contact: Ipswich City Council - Conservation, Parks and Sport. Telephone: 07 3810 6666.

Appendix A - Definition of Key Concepts

Recreation

Recreation activities are those:

- people undertake for enjoyment in their own free time;
- not based on formal competition and/or organised administration; and
- that lack a formal set of rules.

Outdoor Recreation

Outdoor Recreation activities:

- are undertaken outside the confines of buildings (ie in the outdoors); and
- do not involve organised competition or formal rules; and
- can be undertaken without the existence of any built facility or infrastructure; and
- may require large areas of land, water and/or air; and
- may require outdoor areas of predominantly unmodified natural landscape.

Note: Built facilities, site modification or infrastructure may be provided to manage the impacts generated by the activities. However, outdoor recreation activities are not dependent on built facilities, site modification or infrastructure. Activities that involve organised competition based on formal rules are, by definition, sports.

Outdoor recreation activities include (but are not limited to) non-competitive:

- abseiling;
- bicycle riding (road);
- bird watching;
- walking;
- camping;
- canoeing/kayaking;
- climbing;
- scuba diving;
- snorkel diving;
- recreational fishing;
- hang gliding;
- horse trail riding;
- hunting with firearms;
- hunting with bow and arrow;
- mountain bike riding (off-road);
- off-highway or off-road motorcycle, trike and quad riding;
- off-highway or off-road four wheel and two wheel driving;
- jet skiing;
- power boating;
- sailboarding;
- sailing/yachting;
- surfing; and
- water skiing.



Note: Competitive versions of some of the above activities exist. While competitive activities have much in common with non-competitive activities, the policies, planning outcomes, infrastructure and initiatives that support competitive activities do not necessarily support non-competitive activities.

For example, competition often focuses on speed, technical difficulty and increased risk taking - each of which reduces safety margins. Consequently, competition often requires exclusive use of areas that would otherwise be concurrently available for several recreation activities.

Recreation Settings

Recreation settings are a result of the combination of the biophysical, social and managerial attributes of a place in which recreation takes place. Biophysical attributes include the:

- terrain;
- type of access to and within;
- number and type of built structures present;
- plant community;
- animal community;
- smells caused by natural features (eg flowering plants, rain, drying algae after floods);
- sounds caused by natural features (eg water falls, surf, bird song, wind); and
- area of available landscape/seascape.

Social attributes include the:

- total number of people present;
- activities of the people who are present;
- sounds caused by machinery and the activities of people;
- smells caused by machinery and the activities of people; and
- number of people in the social group to which a person belongs and their behaviour.

Managerial attributes include the:

- ownership and management arrangements for a site;
- set of regulations/rules/bylaws operating at a site;
- landscaping and facility design and standards;
- frequency of interaction with onsite enforcement, educational, management and maintenance staff; and
- number and obtrusiveness of signs.

People perceive these attributes as sights, sounds and smells.

Open Space

Open space is any area of land and/or water on which no, or very few, built structures are present, and consequently, which has its surface open to the sky. The surface may be modified from its natural condition but is usually substantially unpaved. Open space could include forests, farming land, beaches, lakes, dams, deserts and urban parks on which no, or few, built structures are present.

Like many other landscape attributes, open space is not an absolute condition. It grades from totally open space (ie no built structures for hundreds of km²) to the edges of built-up urban areas - depending on the proportion of the area which is taken up by built structures. The boundary between open space and built areas may be indistinct.

Be aware that other definitions of open space may be used in local government planning schemes or other land use planning documents.

Open space may have value for one, or more, of the following:

- outdoor recreation;
- sport;
- forestry and agricultural or pastoral production;
- nature conservation;
- maintenance of natural ecosystems and/or agricultural systems and the natural processes that sustain them;
- protection and/or management of significant environmental, cultural heritage and/or natural resource management areas;
- management of water catchments;
- maintenance of cultural practices;
- scenic quality and amenity; and
- tourism.

Recreation Opportunities

Recreation opportunities are particular combinations of recreation activities (eg swimming) in particular settings (eg in an Olympic pool, in a mountain stream, in the surf, on a coral reef). Each combination of recreation activity and setting constitutes a different recreation opportunity.

Recreation opportunities (ie. specific combinations of recreation activities and settings) are the fundamental products of recreation services and the fundamental units of outdoor recreation planning and management. Client/participant choice, marketing strategy, management inputs, equipment requirements, skill requirements and facility designs, among other things, are all based on the attributes of particular combinations of recreation activity and setting.

For example, walking in a suburban park is one type of recreation opportunity while walking for several days across untracked deserts is a different opportunity. Each combination of recreation activity and setting:

- requires different skills and equipment;
- requires a different setting;
- attracts different participants/clients with different expectations;
- provides a different recreation experience; and
- requires different management inputs to maintain quality, safety, sustainability and diversity.

It is important to note that individual people may have radically varying experiences from the same combination of recreation activity and setting. The concept of recreation opportunity does not attempt to predict or direct how particular individuals respond to particular combinations of recreation activity and setting.

The recreation opportunity concept is further explored in the following by comparing the same recreation activity (in this case scuba diving) in three different recreation settings. Diving on a natural coral reef presents an environment with a wide diversity of terrain, depth, current speed and direction, water temperature and coral/coralline algae forms and a diverse marine animal community that is an artefact of ecological processes without human intervention.



Most, if not all, of these attributes are beyond the immediate control of humans and cannot be predicted with precision. Scuba diving in a complex ecological community like a coral reef is one type of recreation opportunity.

Artificial reefs are different in form and character from naturally occurring reefs, especially immediately after placement of the structures (eg sunken ships or old tyres) on which they are based. Consequently, they do not offer exactly the same type of scuba diving opportunity as does a naturally occurring coral reef. However, with time and uninterrupted ecological succession, they would approach the same setting as that offered on a natural coral reef.

It is important to recognise that the recreation settings can change and, as a consequence, so do the recreation opportunities that result.

A concrete swimming pool offers a third type of scuba diving opportunity that is quite different from the previous two. It lacks the diversity of terrain, depth, current, ecology, light conditions, substrate and marine animals that is present in the two settings described above. Scuba divers may use the same equipment (wet suit, fins, face mask, weight belt, scuba tank, etc) in a pool that they would on a coral reef, but the experience they derive is likely to be radically different.

Finally, it should be noted that built facilities may be part of recreation opportunities but the concept has a much broader meaning. It is possible to have a recreation opportunity where there are no built facilities (ie no buildings, no roads, no toilets, no electricity, no signs, etc). In fact, some recreation opportunities demand an absence of built facilities.

Recreation Planning

Daly (2000, p35) defines recreation planning as “a people-oriented process that brings together information about the rational allocation of recreation and sport resources to meet the present and future requirements of people at the state, regional and local level.”

Recreation planning requires a comprehensive understanding of legislation; policy frameworks; resource (ie land/water) characteristics; recreation demand and supply; key stakeholders; service delivery responsibilities; key recreation planning and management frameworks; and theoretical and technical innovations that support land use planning.

Recreation planning includes identifying places/spaces needed to satisfy future recreation demand as well as for the services, programs and facilities that support participation. Satisfying the demand for places in which to undertake recreation activities is dependent on identification, protection, and management of physical places within the landscape.

Recreation planning involves collecting and analysing information on a range of topics including:

- recreation needs;
- existing and proposed recreation settings;
- existing and proposed recreation opportunities;
- existing and proposed recreation facilities;
- existing and proposed recreation programs;
- participation rates in recreation activities;
- the views of interested parties on recreation issues;
- demographic factors affecting any of the above; and
- social, biophysical and managerial impacts of recreation.

This information is used to support decisions on the allocation of funds and other resources (eg staff time, funds and land) to recreation services (including facilities, programs, recreation opportunities and promotional materials) and the development of policy on recreation matters.

Outdoor Recreation Services

Outdoor recreation services provided by state and/or local government agencies and/or other public sector landholders include:

- planning (eg local government recreation plans for specific areas; the recreation components of open space plans, management plans - which incorporate recreation sub-plans - for National Parks, Marine Parks, State Forests and other public land tenures, etc);
- basic custodial management (eg wildfire suppression, weed control, feral animal control and fencing);
- resource/land management (eg erosion control, prescribed burning, management of noise, water or air pollution; landscaping, etc);
- infrastructure design, construction and maintenance (eg road and track construction and maintenance, provision of water, toilets and sewerage, repair of vandalised structures, etc);
- enforcement (eg patrols by enforcement staff, on-the-spot fines, confiscation of equipment, directions to leave an area or to stop doing a particular activity, etc);
- education and interpretation (eg direction and educational signs, guided walks, guided drives, spotlighting, campfire talks, posters, information sheets, brochures, books, videos, maps, etc);
- outdoor recreation activity programs (eg organised outdoor recreational walking, swimming instruction, training for participants and officials, etc);
- provision of supervision, first aid, search and rescue (eg Surf Life Saving, Coast Guard, pool supervision, etc);
- organising external suppliers (eg food and beverage suppliers, cleaners, entertainers, first aid, etc);
- marketing (eg promotional events and advertising signs, brochures, books, videos, maps, etc); and
- financial and other forms of support to non-government outdoor recreation interest groups.

Ecologically Sustainable Outdoor Recreation

Ecologically sustainable outdoor recreation is the use of areas/settings for outdoor recreation purposes both:

- within their capacity to sustain natural processes; and
- so that the benefit of the use to the present generation does not diminish the potential to meet the needs and aspirations of future generations.

Recreation Succession

Throughout Queensland and elsewhere in Australia and overseas, setting diversity has been shown to be reduced by recreation succession. Recreation succession is the process by which the quality or condition of recreation settings deteriorate and/or change as a consequence of the impacts of recreational use and/or the actions of management. This is the main outdoor recreation issue, especially in the high growth areas of the state where the demand for outdoor recreation is highest.

Recreation succession ultimately causes a change in the participants who use a particular site and/or the types of recreation activities, which can be undertaken there. It can occur at a specific site or across large areas.



Recreation succession occurs when the quality or character of a recreation setting changes beyond the tolerance of the existing users. New users who are tolerant of the new condition replace those displaced by the changes. In turn, the new users generate impacts which change the inherent character of the site or management attempts to mitigate or control the impacts by a range of means including access restrictions and site hardening.

The result of recreation succession is that particular recreation activities or particular styles of recreation activities are displaced from where they once occurred. This has less significance while suitable new sites are available. But for some activities in some areas (eg trail bike riding near major urban centres) the supply of new sites is already exhausted. In effect, recreation opportunities (ie the opportunity to undertake a particular recreation activity in a particular recreation setting) are lost through recreation succession.

This is no minor matter. In some communities, people who have chosen particular locations to live because of the recreation opportunities provided from the natural or undeveloped character of those locations, can have their lives (not just their lifestyles) disrupted by recreation succession.

Nature-based Recreation

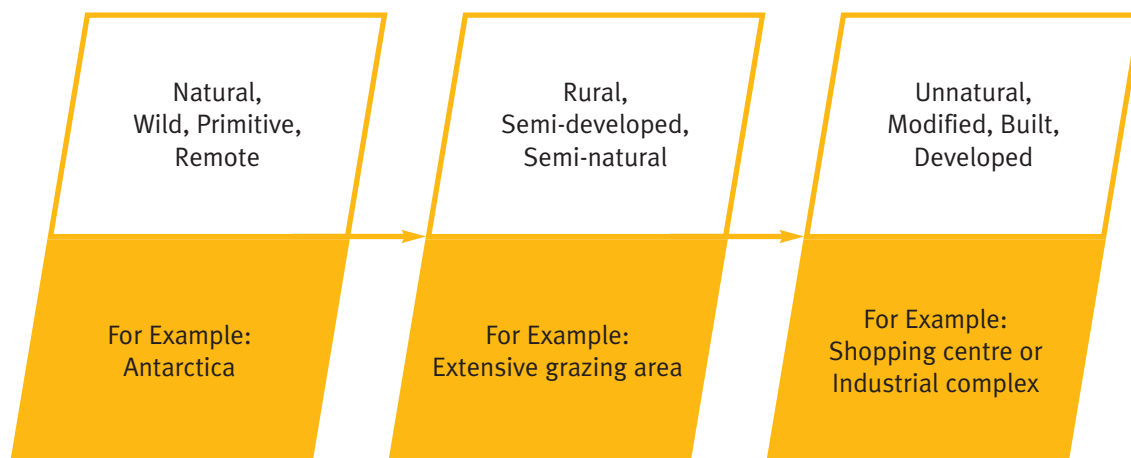
Nature-based recreation activities are those:

- where appreciation of nature is the key motivational factor; and
- substantial modification of the natural environment is not required; and
- where the natural environment is critical to the participation and satisfaction of the participants; and
- that occur in, and are dependent upon settings/locations which are perceived by those pursuing recreation as not being significantly altered by recent/modern human activity; and
- that occur in, and are dependent upon settings/locations which are not under the direct control of participants.

Some components of this definition may require further explanation. “Natural attributes” refers to the suite of characteristics determined by nature (including climate, terrain, substrate, endemic vegetation, soundscape, the endemic animal community, animal behaviour and water quality and hydrology) of settings or locations.

However, naturalness is not an absolute condition. The naturalness of a particular location can vary over time. Naturalness can be expressed on a range from completely wild-natural-remote to completely modified-urban-built-developed, depending on the proportion of natural and human modified elements in the landscape.

Figure A-1 - Range of naturalness of outdoor recreation settings.



As a result, settings can range from very, very natural (eg most of Antarctica) through partly natural (eg a rural landscape with some remnant native vegetation left along creeks and ridges) to completely modified (eg a large modern shopping centre with a closed roof, Muzak, artificial lighting, air conditioning and large crowds).

“Occurs in” means any nature-based recreation activity requires particular types of settings or locations before they can be undertaken. These settings are characterised by a combination of biophysical attributes - most of which are neither significantly altered by recent human activity nor controlled by current human activity.

“Dependent upon” means a particular recreation experience can only be attained in settings or locations which are characterised by a combination of biophysical attributes which are neither significantly altered by recent human activity nor controlled by current human activity. In effect, nature-based recreation is dependent upon the existence and availability of recreation settings that are significantly more natural than modified.

For example, to play golf successfully, a golf course is necessary. To build and maintain a golf course, it is necessary to modify the natural environment. With enough time, money and effort, golf courses can be built and maintained almost anywhere - in deserts, on coastal sand dunes, on high plateaux, on coral atolls, etc.

Well maintained and constructed golf courses do not occur naturally. Most of the hazards of playing golf are designed into the courses and can, with high levels of precision, be predicted in advance. In effect, the recreation situation is “controlled” by course design, the rules of the game and any club rules. Therefore, golf is not nature-based recreation.

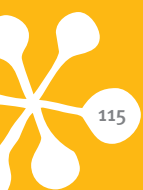
However, walking is nature-based recreation if it is undertaken in a setting:

- where the landscape is predominantly natural; and
- where the participant cannot control a wide range of natural elements of the setting (eg weather, terrain, tidal fluctuation, etc); and
- where the focus of the activity, for most of the time, is for the participant to appreciate the uncontrolled natural elements of the environment.

Walking in this type of setting is usually called bushwalking. To bushwalk successfully, a reasonable area of bushland and an operable leg (or leg equivalent) or two is needed. Relatively undisturbed native forests, woodlands, heaths, beach dune systems, deserts and grasslands - which are essentially natural systems and which cannot be manufactured with their natural diversity of terrain, species and community structure - are generally accepted as “bush”.

In addition, there is a degree of unpredictability in bushwalking because many of the components of natural bushland (eg terrain, animal behaviour, presence or absence of various species, weather, climate, etc) cannot be controlled or precisely predicted by humans. Unpredicted events and discoveries to which the bushwalker must react or respond are part of the intrinsic value of the experience of bushwalking.

It is worth noting that particular outdoor recreation activities are not inherently nature-based. For example, white water kayaking is often cited as an example of nature-based recreation. However, kayaking in an artificial white water course in which the obstacles are contrived and movable, the water volume is controlled and the focus is on speed and competition is not nature-based recreation.



On the other hand, travelling on a wild, natural river where kayaking is used as the means of transport and the focus is on experiencing the natural environment can be nature-based recreation.

A combination of three factors - recreation activity, participants intent and recreation setting determines whether or not a given recreation activity is nature-based. The difference between white water kayaking which is nature-based and white water kayaking which is not nature-based exists despite the use of the same equipment and skills.

It is also worth noting that built facilities (eg resorts, huts, shelter sheds, paved tracks, roads, etc.) cannot be inherently nature-based - even if they are painted green.

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