

South Bank Corporation Policy Planning and Projects

SUBJECT: Ecologically Sustainable Development

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1. Introduction

1.1 The Corporation's Vision

The Corporation's vision for the South Bank Precinct is to create 'the best new urban precinct in the world'. The Corporation will continue to develop and manage the Precinct in a manner that retains its reputation as an inspiring example of a world-class inner city lifestyle destination that connects the community to a vibrant commercial, educational, cultural and convention experience in a unique sub-tropical parkland setting.

South Bank Corporation (SBC) is committed to striving to achieve ESD through a balance in environmental, economic and social / cultural factors in a way that will ensure that resource conservation and the environment is protected now and for future generations. This approach is reflected in the Corporation's commitment to best practice sustainability in place making and place management activities throughout the Corporation area. The Corporation aims to ensure that sustainable practices are a standard procedure on all new and ongoing projects.

Future developments and on going operations should stand out as being world class examples of design excellence and operational practices incorporating the three core principles of ESD.

What is Ecologically Sustainable Development

The most well-known definition of 'ecologically sustainable development' (ESD) is sourced from the Brundtland Report (WCED, 1987) as:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Australia has developed its own definition through the National Strategy for Ecologically Sustainable Development as:

"Development which aims to meet the needs of Australians today, while conserving our ecosystems for the benefit of future generations."

At a State level, the *Integrated Planning Act 1997*, Queensland's primary piece of planning legislation, aims to:

- Achieve ecological sustainability by:
 - Coordinating and integrating planning at the local, regional and State levels;
 - Managing the process by which development occurs; and
 - Managing the effects of development on the environment (including managing the use of premises).

ESD is to be achieved by:

- Ensuring decision-making processes that:
 - Are accountable, coordinated and efficient;
 - Take account of short and long-term environmental effects of development at local, regional, State and wider levels;
 - Apply the precautionary principle;

- Seek to provide for equity between present and future generations;
- *Ensuring the sustainable use of renewable natural resources and the prudent use of non-renewable natural resources;*
 - *Avoiding, if practicable, or otherwise lessening, adverse environmental effects of development;*
 - *Supplying infrastructure in a coordinated, efficient and orderly way, including encouraging urban development in areas where adequate infrastructure exists or can be provided efficiently;*
 - *Applying standards of amenity, conservation, energy, health and safety in the built environment that are cost effective and for the public benefit; and*
 - *Providing opportunities for community involvement in decision making."*

This policy is based on principles identified in each of the above documents.

It is commonly accepted that there are three principle aspects of ESD, described as the triple bottom line, which include:

- Environmental aspects;
- Economic aspects; and
- Social / cultural aspects.

Implementation of this Policy

The purpose of this ESD policy is to ensure that sustainable practices are implemented and maintained throughout the life of the Precinct. The policy will be applied in a variety of means throughout the Corporation area, as described below, to ensure its objectives are reflected and achieved. The Corporation's responsibilities for implementing ESD practices can be best considered in terms of three sub-precincts, including the Parklands Precinct, the River Precinct and the Mixed Use Precinct. For the purposes of this policy, the Parklands and Mixed Use Precincts are the key areas of focus, with the River Precinct being considered only in terms of direct impacts from the remainder of the Corporation area. The Corporation's River Precinct responsibilities may be addressed in complying with Brisbane City Council's Strategic River Activation Plan.

This policy relates to the entirety of the Corporation's operational boundary, as defined under the *South Bank Corporation Act 1992*, and relates to both new developments and ongoing operations in the Precinct. It is recognised that the Corporation influences and interacts with the wider community; however for the purposes of measuring direct environmental, economic and social impacts of the organisation, the operational boundary has been applied.

The key areas this policy will be implemented in include:

- Decision making processes;
- Through the development assessment processes applying to all development proposals or changes to existing approved developments;
- In any future master planning studies;
- In the design, construction and operation of new systems or structures for use within the Corporation area;
- Through tenant operations;

- Upgrades, improvements and the overall on-going maintenance and management of the Precinct;
- Through outcomes of the Annual Parkland Review; and
- Through obligation to meet the ESD policy by appointed contractors.

The Corporation's ESD implementation strategy will ensure application of the policy.

The Corporation's Goal for Sustainability

The Corporation's goal is to create, maintain and communicate South Bank as a development precinct of ecologically sustainable excellence, demonstrating environmental leadership and commercial viability to the market.

The Corporation will promote the environmental, economic and social / cultural wellbeing of present and future generations through careful planning and decision-making that aims to avoid any adverse impacts both locally and regionally.

Through the triple bottom line approach including environment, social and economic activities, the Corporation will:

Protect and enhance the Environment by:

- Protect and improve water, air and soil quality and maximise the use of renewable energy sources and resources.
- Work in harmony with natural ecosystems.
- Protect and enhance remnant and constructed ecosystems.
- Design for our sub-tropical climate.
- Promote conservation of resources.
- Harnessing and harvesting renewable energy sources and resources such as cogeneration from buildings and solar power in the Precinct.

Ensure Economic growth and prosperity by:

- Use resources efficiently and responsibly.
- Encourage a strong and diverse local economy.
- Encourage best practice sustainable design practice for the built environment.
- Promote the economic benefits of ESD.
- Create long-term value.
- Ensure whole of life costs are considered and achieved.

Enhance the Social / Cultural attributes by:

- Provide a safe, amenable, accessible and socially cohesive environment for all workforce, residents and visitors to the Precinct.
- Enhance the wellbeing of the people.
- Ensure services, facilities and community amenities are universally accessible.
- Encourage proactive participation in the development and management of South Bank.
- Promote the conservation of significant heritage values and the conservation of and awareness of cultural and indigenous links with South Bank's past.
- Use the South Bank profile to educate the community on ESD.

The Corporation is committed to continuous improvement and best practice in environmental management and is committed to sharing its knowledge and experiences with the community and other key stakeholders to promote and achieve positive ESD and outcomes. Reporting on the Corporation's trend towards continuous improvement on ESD initiatives will be implemented to provide feedback on courses of improvement. Reporting will be in according to the Global Reporting Initiative Guidelines 2002.

Policy Objectives

The Corporation's policy objectives in relation to ESD are outlined below. The objectives have been divided into the three headings, being environmental, economic and social.

Environment Design Process and Materials Selection

Design Standards

High quality design standards across all aspects of the public environment, both buildings and other elements such as street furniture, will be promoted to enhance the public realm and minimise visual pollution.

Material Selection

The selection of materials for use in new developments and the modification, maintenance, repair and / or refurbishment of existing assets within the Corporation area will consider impacts on the environment. Materials selection will be sustainable, considering embodied energy efficiency and product lifespan, product potential for reuse as well as being durable and low-maintenance and preferably renewable and recycled materials that represent sound whole of life cost value.

Development, events and management practices will minimise the use of materials which deplete natural resources or create toxic pollution in their manufacture, use or disposal. This is in line with reference to adoption of Life Cycle Analysis (LCA) principles.

Sub-Tropical Climate

New buildings, structures and outdoor spaces will be designed and constructed to respond to elements of Brisbane's subtropical climate – that is, to support year round use, and achieve this through low-energy and low-water use, particularly in relation to shade and maximising prevailing summer breezes through natural ventilation mechanisms.

Design and Construction Process

The design and construction process of any new development within the Corporation area will be integrated and collaborative. All structures will be designed for a long life-span whilst promoting adaptability and greater options for future refurbishment / redevelopment.

Consideration of ESD principles needs to be included in the initial stages of concept development through to implementation for any new project. Post occupancy evaluation will ensure that integrity of ESD principles remains over the life of that development.

Indoor Environment Quality

Indoor environment quality (e.g. acoustic, visual, access, air and natural light) will be a primary consideration to promote long term health and vitality of occupants of buildings or structures.

Water Sensitivity

Impacts on Waterways

New developments and activities will be designed and managed to water quality of internal and adjacent waterways, specifically the Brisbane River and on-site water bodies. Water sensitive urban design (WSUD) should be adopted to improve water quality in terms of runoff, whilst ensuring recharge to groundwater, therefore reducing additional water use for urban landscape areas.

Water Efficiency

All activities will be managed so as to minimise potable water demand from Brisbane's main supply and use best practice ESD principles, technology and management practices to conserve water and minimise the demand on water, sewer and stormwater infrastructure.

Water harvesting and storage, wastewater re-use, water recycling and alternative sources for water (i.e. water mining) are encouraged. Water efficient fittings and fixtures are essential for new developments and any refurbishment of existing buildings.

The use of water is to be minimised during the construction process to ensure best practice.

Energy Efficiency

Energy Consumption

All energy consuming elements, buildings and structures will use best practice ESD principles, technology and management tools to maximise the use of renewable energy sources, reduce energy consumption and reduce greenhouse gas emissions.

The heating of water is one of the greatest sources of greenhouse gas emissions in Queensland, as a result water heated by renewable energy sources is encouraged.

On-Site Energy Generation

The use of alternative sources of energy is encouraged by the Corporation, including on-site generation, in new and existing developments within the South Bank Precinct.

Waste and Pollution

Air Quality

All development and activities (including events and asset management) within the Corporation area are to have a positive impact on Brisbane's air quality and will avoid the use of ozone depleting or high greenhouse gas products where possible.

Waste Management

All new development must have a waste management plan taking into account the construction phase, commissioning and operational phases, for approval.

The management of waste disposal within the Parklands is to promote 'Reduce, Recycle and Re Use' theme in accordance with a waste management strategy to be developed by the Corporation.

The Corporation is to utilise only natural bio-friendly products for cleaning, landscaping and other maintenance operations.

Construction and demolition waste requiring disposal at landfill will be reduced through the greater promotion of reuse and recycling practices.

Stormwater Run-off

Best practice pollution prevention methods will be implemented to all construction projects to ensure that there are no adverse impacts on stormwater run-off.

Where a project impacts on overland flow and stormwater catchments, best practice principles are to be implemented. A stormwater management plan should be developed to treat any stormwater runoff from the site.

Light and Noise Pollution

Whilst recognising the nature of the Parklands, adverse impacts of noise and lighting from the Parklands on surrounding land uses are to be appropriately managed.

Noise during construction is managed and effects are ameliorated by appropriate devices.

Good lighting design is fundamental to ensure appropriate Australian Standards are met and to reduce any adverse impacts on adjoining / adjacent land use.

Contaminated Land

In accordance with State legislation and best practice, the contaminated sites are to be appropriately remediated.

Transport

Encourage Public Transport

South Bank has a variety of alternative public transport options, including rail, bus, ferry, walking and cycling. The use of public transport to South Bank is strongly encouraged to reduce adverse impacts on Brisbane's air quality, to reduce greenhouse gas emissions and to reduce traffic conflicts.

Active Transport

Walking and cycle is a preferred form of transport that supports ESD principles. The Corporation encourages improved pedestrian / cycle amenity to ensure safe and comfortable movement channels that promotes active transport modes.

Transit-Oriented Development

Transit-oriented development principles are encouraged and supported by the Corporation. Integration of mixed use, high density development and public transport is fundamental in achieving transit-oriented development principles and to meet growth demands of the city centre.

Vehicle Parking

Whilst the Corporation encourages the use of public transport, it is acknowledged that the use of private vehicles to access the Precinct will remain as a mode of transport. In line with Brisbane City Council's Policy for car parking and ESD principles, the Corporation seeks to encourage the reduction of car parking provided in new developments and promote both public and active transport modes.

The supply of car parking within the Corporation Area should be managed so that the Precinct remains highly accessible for private vehicles and the pricing system should ensure private vehicle parking is available to the widest possible demographic.

The parking guidance system is to promote the efficient use of car parking throughout the Precinct and minimise traffic congestion and unnecessary travel by directing vehicles directly to parking areas, particularly during major events.

Indigenous Cultural Heritage

The Corporation will consult with relevant Indigenous communities in relation to future developments to protect Indigenous cultural heritage values.

The Corporation will promote Indigenous cultural heritage values in design elements of major projects, landscape/open space and streetscape and public art throughout the Precinct where appropriate, through collaboration with the Indigenous community.

The Corporation is to promote a greater awareness of Indigenous cultural heritage values in collaboration with the Indigenous community through public art, performance and major events.

Landscape / Open Space

A significant asset of the Corporation includes the parklands and open space areas. These areas will be retained and enhanced to continue to promote diverse social, cultural and recreational opportunities.

The adaptability of the open space areas for high levels of intermittent use for events will be maintained. These areas are to be maintained for spontaneous and organised events, ensuring robust spaces to meet the growth demand of the city centre. Natural and built landscape qualities of the parklands and open space are to be reviewed and monitored to ensure open space demands are met.

Landscape Preservation

The diversity of the constructed landscapes of the Precinct are to be protected and enhanced through ESD practices. The Parklands are identified as a place that contains a diverse range of plant species, including species of local, regional and global sources.

Existing parkland vegetation will be maintained and enhanced to ensure a sustainable landscape providing a framework for the landscape/open space network within the precinct and connectivity with adjacent landscape areas including the City Botanic Gardens, Roma Street Parkland and Musgrave Park.

Integrity of landscape qualities that promote subtropical climate responsiveness are to be maintained to ensure a strong sense of place, particularly mature tree species including the endemic *Ficus benjamina* and *Ficus macrophylla*, Moreton Bay Fig Tree.

Native Vegetation

The use of endemic species / native vegetation is promoted to ensure sustainability, biodiversity and habitat connectivity. Endemic species / native vegetation are more responsive to the local climate and are generally drought and disease tolerant, therefore reducing water and maintenance requirements.

Waterfront Vegetation

Maintaining and enhancing waterfront vegetation, where appropriate is encouraged to assist in biodiversity and to promote healthy waterways.

Water Sensitive Urban Design

Water Sensitive Urban Design (WSUD) principles assist in maintaining an ecological balance in the landscape, therefore reducing water and maintenance requirements. WSUD principles include the use of bio-filters and other natural biological systems for the treatment of water promoting sustainable urban landscapes. The Corporation encourages WSUD principles as part of an integrated water management system which may include initiatives such as constructed wetlands, gross pollutant traps, ponds, porous pavement and bio-filtration devices.

Pests

Evaluation of pest species where necessary will be undertaken in a humane manner to ensure the protection of endemic fauna of the area.

Economic Benefit

Investment

The benefits of investing in sustainable resources will be considered for all new projects. Lifecycle costings, operational savings, long term cost efficiencies and affordability will be considered.

The Corporation will continue to provide economic investment attraction to the Precinct and will also encourage existing businesses to invest and expand in the area.

Asset and Finance Management

The Corporation will continue to manage assets and finances to ensure the longevity of the Precinct. Profits from the Precinct will be re-invested into upgrading public infrastructure / facilities.

Create long term value

The Corporation will operate as a successful business with at least the same degree of efficiency as comparable businesses.

Job Creation

The Corporation will publicise the economic output and employment generation derived from its activities. It will continue to support employment generation and training

opportunities through programs and initiatives such as the Indigenous Employment and Training program.

Productivity

The Corporation will continue to reduce capital and operating costs through good design and management.

Community Development

Precinct Preservation

The Precinct is an important asset in its central city context particularly the contribution it makes to recreational, social, cultural and educational uses.

Further use, management, development and event activities within the Precinct complement, protect and enhance its preservation, recognising its significance as a significant open space resource for current and future generations.

The Precinct promotes active lifestyle pursuits and provides the facilities to support a diverse range of active and passive recreational activity. This objective is facilitated through the Corporation's events and marketing programs.

Demographic change and residential density growth of the region underscores the importance for preservation of key open space nodes and provision for potential adaptation over time to ensure opportunities for diverse recreational, social and cultural exchange.

Community Education

The programs and initiatives within the Precinct will be designed to foster a greater community understanding of ESD principles, the importance of design response to subtropical climate and native vegetation.

The Precinct enhances community wellbeing through active and healthy lifestyle programs and opportunities, particularly walking, cycling, swimming and other recreational activities.

Meeting Place

The Corporation area will offer high quality and enriched experiences to those who live, work or visit the Precinct. The Precinct will continue to be recognised as a highly desirable recreational, environmental, educational and social / cultural destination.

Sense of Place/Cultural Identity

The Corporation will continue to design for social and cultural diversity to foster a positive community atmosphere, and enhance the strong sense of place. The Precinct will continue to positively contribute to the cultural identity of the city.

The Precinct will continue to be a people friendly place.

The Corporation's events and place activation programs contribute to supporting social and ethnic diversity by actively encouraging a broad range of multi-cultural activities and uses within the Precinct's public space.

Social inclusiveness in terms of public realm design and place management can directly assist in creating an equitable, welcoming environment .

Public Art

Public art (in all its forms) will be promoted to enhance cultural awareness and sense of place of the Precinct. It will help inform visitors and community of the rich history associated with the precinct. Indigenous cultural values will be promoted through public art.

Community & Stakeholder Consultation

Effective community and stakeholder consultation strategies will be promoted in all new development or redevelopment projects. It is important that open and transparent consultation is implemented from an early stage in any development or re-development project to maximise outcomes and promote community benefit.

Affordable Housing

Affordable housing is encouraged and facilitated within the broader Precinct in a commercially viable and ecologically sustainable manner, promoting social cohesiveness and cultural diversity.

Cultural Heritage Values

All activities will recognise the significance of cultural heritage values of the Corporation area by complementing, protecting and enhancing values. The re-use of heritage buildings for appropriate uses is promoted with the provision of a Cultural Heritage management plan. The Corporation is to maximise community awareness of culturally significant heritage aspects of the Precinct, both pre and post European settlement.

Business and Urban Interaction

The relationship between business and urban communities will reinforce South Bank as part of Brisbane's city centre. The uniqueness of South Bank will promote the Precinct as the centre of Brisbane's inner city leisure activity, a natural meeting place, a centre of excellence for culture, art and education, a busy area of diverse use for people of all ages, ethnicity and social groups, as well as providing for more passive and quieter pursuits. The commercial vitality of the Precinct will attract creativity, variety and economic prosperity, complimenting the broader South Brisbane peninsula communities of West End, Highgate Hill and Woolloongabba.

Occupant Satisfaction

The satisfaction of occupants and visitors to the Precinct is a primary consideration of the Corporation. Principles of ESD are to be implemented throughout the Precinct to ensure the following elements are achieved:

- Universal access to all services and facilities;
- Public safety by minimising the potential for crime and implementing principles of Crime Prevention Through Environmental Design (CPTED);
- Healthy living environment;
- Water saving initiatives of WSUD principles;
- Designing for a sense of place and local distinctiveness; and
- Promoting social cohesiveness and cultural diversity.