



Environment

Clarity of Concept

The 'environment' is a complex of surrounding circumstances, conditions, or influences in which a thing is situated or is developed, or in which a person or organism lives, modifying and determining its life or character.

The 'natural environment' is such an environment that is relatively unaffected by human activity.

Therefore, when this paper refers to the term 'environment', it refers to the broad issues of natural resources, natural and built environment and processes, trends and assumptions (listed on page 5).

Logan City Council's role in relation to environment issues spans:

- shared responsibility for reducing environmental impact;
- measures to facilitate and promote sustainability;
- enforcement, monitoring and facilitating for public health outcomes;
- a user of resources;
- a builder of infrastructure; and
- generally as a leader in the Logan community.

Where are we now?

Natural Environment

Logan's natural environment has been significantly modified since European settlement. Originally the Logan area was covered in native vegetation of Blue Gum/Grey Ironbark and/or Pink Bloodwood Woodland/Open Forest and stands of Broad leafed Paperbark-Blue Gum-Swamp Box Open Forest. Significant topographical aspects of the area include the numerous ridgelines and elevated slopes which provide aspect and views to key features of Daisy Hill, Greenbank, wetlands, water courses and rivers including Scrubby Creek, Berrinba Wetland and Logan River.

The larger stands and the many smaller pockets of vegetation within the urban area retain species of local, regional and national environmental significance, including core Koala habitat. Together, these form key components and links in the broader regional network and mosaic of values. For example, the Logan River leads directly into Southern Moreton Bay and major estuarine resource area and RAMSAR listed wading bird habitat.

Logan is home to a wide array of animals. Nearly 400 mammal, bird, reptile and amphibian species have been recorded in Logan. Of these, 19 are listed as rare, threatened or endangered including the Wallum Froglet, Glossy-Back Cockatoo, Powerful Owl and Richmond Birdwing Butterfly.

The environment has been actively managed firstly by the Yugambah and the Jaggera people and then by European settlers. The management and modification of the natural environment has gone through periods of resource collection, grazing, intensive horticulture, rural residential and then urban development.

Since the formation of Logan City, the primary impact on the natural environment has been land use change. As urban development has been rapid, many residents have noted negative impacts on natural environmental values and features in their lifetime. Residents still highly value the natural environmental areas that are found in larger areas (Daisy Hill) and adjacent to water courses.

Logan's waterways have been extensively modified and impacted upon by changes in land use. They currently suffer from poor water quality issues which originate from within Logan and from the broader catchments. Despite this, they still retain significant environmental value and are the focus of management and protection through the application of planning controls, active management (weed control, waterways rehabilitation) and infrastructure development (storm water, waste water).

Urban Environment

Since European settlement, community infrastructure has directly and significantly influenced the urban form and built environment of Logan. The South East Freeway, the M1, the interstate train line and, into the future, the Mount Lindesay Highway form significant barriers between the east and the west portions of Logan. This infrastructure has also facilitated development of key centres, including Browns Plains and Hyperdome, which provide key vantage points and markers in travelling between Brisbane, Gold Coast and Beaudesert for people who live in and outside of Logan. The train stations on the Gold Coast Line and the bus stations provide a transit focus for many people who work and recreate outside Logan.

Logan City Council has directly influenced and built much of the urban environment present in Logan. This has been achieved through successive planning schemes long term planning and investment in infrastructure such as sewerage, roads, parks, waste facilities and community facilities.

Increasing community focus on environmental sustainability has resulted in a growing trend to integrated planning, regulation and incentives managed by government. Beaudesert and Albert Local Governments and then Logan City have, through documents including planning schemes, legislation and policies, played the primary role in this most recent change in land use and increased focus on environmental sustainability. These plans, laws and policies have sought to protect significant environmental areas and values while minimising impacts of urban development and ultimately producing attractive and sustainable suburbs. At the same time the resultant complexity and cost of increased regulation is increasingly

being recognised as a problem. A growing focus is being brought on self-regulation and incentives.

The Logan environment has always been influenced and impacted by changes in the regional, national and global environment. These changes have brought into increasing focus shortages of natural resources which have impacted both the economy and community of Logan. The current water shortage, fuel prices and changing climate patterns have started to impact on Logan. This has brought about an increasing focus on efficiency in utilisation of natural resources. Alternatives such as cycling to car use and desalinisation to bulk water storages, materials recycling are being more seriously considered and implemented.

Finally, these broad changes have resulted in regional, state and national approaches to some of the most pressing environmental issues. These include:

- Water shortages - Review of Water Institutional Arrangements and specific infrastructure project - Southern Regional Pipe Line
- Managing urban development, (SEQ Regional Plan - SEQIPP)
- Vegetation and biodiversity protection, (Vegetation Management Act - Bio-Regional Corridors)
- Improved public transport patronage (Translink)
- Alternate fuel research.

Population Health

It is now recognised that health issues that have emerged with urbanisation. While urbanisation is underway at an alarming pace worldwide (with South East Queensland being one of the fastest growing urban regions in the world), urban health issues become complex and this complexity requires cooperation between the conventional health sector and non-health sectors.

Urbanisation has brought about changes to the lifestyle and living environment of urban dwellers. Among such changes are population growth, degrading air and water quality, traffic congestion, waste management, only to name a few. In a social context, urbanisation also has brought about changes in terms of family and working styles. These changes can be seen in an increase in working mothers, a growth of night time workers, reduced physical activity and increased consumption of low-nutrition, take-away foods. In addition, the development of advanced transportation system facilitates the movement of people and goods, increasing the risk of breakouts of infectious diseases among urban population. These various social and environmental changes are intertwined and affect the health of people in urban environments.

In Queensland cardiovascular disease, chronic respiratory disease, type 2 diabetes mellitus and renal disease account for a significant proportion of morbidity experience by the populations and form more than one-third of all deaths in the state.

Poor nutrition, physical activity, tobacco smoking and alcohol misuse are found common underlying risk factors associated with these diseases. Depression as a co-morbidity to these chronic diseases also affects the functioning and quality of life of the people with chronic disease.

Chronic disease is a major burden for the Logan-Beaudesert Health Service District. Considering the entire district population, the major causes of death and illness include coronary heart disease, stroke, chronic obstructive pulmonary disease (COPD), depression and lung cancer.

It is estimated that currently population groups within the Logan area have a higher prevalence of some health behaviours than Queensland as a whole.

These key determinants or preventable morbidity factors are:

- Overweight and obesity;
- Physical inactivity;
- Poor asthma management;
- Poor diabetes management;
- Risk and protective factors for mental health;
- Hazardous and harmful alcohol consumption;
- Tobacco smoking

(Queensland Health 2004)

Overweight and obesity is now a serious western epidemic. In Australia, over half of all adults and almost one in four children are affected. The obesity epidemic needs to be tackled urgently because it is leading to a dramatic increase in chronic diseases such as Type 2 diabetes and cardiovascular disease. Recent estimates of indirect costs of overweight and obesity in Australia range from \$4.5 to 18 billion/year (WHO 2003). This increased burden of disease on the community is entirely preventable.

The number of adults with Diabetes has risen significantly since 1981. Type 2 diabetes represents about 85-90% of cases of diabetes. In 1999 - 2000, it is estimated that 7.2% of Australians aged 25 or over had Type 2 diabetes. This represents more than 85,000 Australians 25 years or over and the number is expected to increase over the coming decades. In 2004-2005, Type 2 Diabetes as a principal or additional diagnosis accounted for 80,590 hospitalisations in Queensland estimated at \$ 46,638,973 for in hospital costs.

When comparing residence of the Logan/Beaudesert Health District to all of Queensland during the same period it was identified that rates for Type 2 Diabetes for Logan area is approx 23% higher.

People with diabetes are two to four times more likely to develop cardiovascular disease. In 2002, Cardiovascular disease accounted for 50,294 deaths in Australia (37.6% of all deaths) and affected 3.67 million Australians in 2001 (AIHW 2004b). Cardiovascular diseases are the most expensive group of diseases in Australia and were responsible for 11% of total allocated expenditure- \$5.48 billion in 2000-01. In 2004/05 there were around 218,829 admissions to Queensland hospitals primarily related to cardiac conditions of which around 14,955 were residents of the Logan

Beaudesert Health Service District. In comparison to the state and when adjusted using the Standardised Incidence Ratio, Logan had higher rates of Cardiovascular Disease by approx 22% than all of Queensland.

Forces of Change

Population Growth:

The primary force for change for Logan's environment will be growth management. Due to its central location, Logan will be impacted increasingly by development outside our boundaries.

Increasing cost of resources:

Issues outside Logan will result in local shortages and price pressures on resources. Shortages, sometime acute, of key resources including water and fuel will drive ongoing focus on efficiency and effectiveness of urban form, transport and specific responsibilities in waste management and recycling.

Community Expectations - Environmental Performance Changing Regulatory Environment:

The trend for improved environmental performance and sustainability while seeking to achieve a greater balance between regulation and individual responsibility will represent an ongoing challenge for Logan City.

Ongoing desire for Suburban Amenity and urban lifestyle:

Many people identify the suburban feel and form of the city as crucial values in choosing to live here. This valuing of the urban form and feel of the city extends beyond the private dwelling to access to the full variety of services and activities available in the urban environment including recreational areas, parks, sporting fields, shops, entertainment venues, hospitals, education. The strongly held values attached to the suburban house and land will remain as a key influence in environmental, planning and infrastructure policy.

Health prevention and increasing Health Costs

The price of health care will continue to increase, coupled with a better understanding of illness prevention (exercise, stress reduction) will in a push for a comprehensive approach to health.

Trends and Assumptions.

- Ongoing population growth with increasing ethnic diversity.
- Ageing of population
- Increase education and understanding of environmental sustainability

- Natural resources - under increasing pressure (water, air quality, land) will lead to increased cost of resources.
- Increased utilisation of natural environment for recreation (bike riding, walking etc.)
- High standard - required through built environment to improve sustainability and health of the City.
- Private vehicles will remain the primary mechanism for most trips.

Where might we be in 2026?

The population of Logan is projected to reach 198,00 people by 2026. An average of 1,400 people have moved to the City every year for the last twenty years. At the same time South East Queensland has grown by 60,000/year. Our neighbours (Brisbane, Gold Coast and Beaudesert) have accommodated the majority of the Region's growth.

The last sections of Park Ridge as Logan's final greenfield development area are being developed. The Park Ridge area which has been the subject of significant planning focus is recognised regionally as a fully integrated Enterprise, suburban environment which has incorporated open space as a key design element to this community. The area provides significant employment in knowledge based enterprises to people who have chosen to live in the area and to those who live both in Beaudesert and Gold Coast. Council planning and management has implemented total water cycle management and has achieved substantial reductions in water usage to values well below the regional water use target for greenfield developments.

Throughout Logan, around key transport nodes and centres, there are examples of redevelopment. Increasingly, single people of all ages live in units or town houses as a cheaper option which, provide greater flexibility and provide better access to public transport and recreational opportunities. These same people have sought and incorporated into their homes water, energy saving technologies to reduce their demands on these resources and reduce overall costs. Demand is significant for different forms of housing with people moving more regularly.

A focus on maintaining and tree planting in public spaces (road reserves and parks) has significantly changed the form and feel of many suburbs. This greening of the suburbs is recognised regionally as an aspect of Logan's image. Council's approach to greening of public spaces has sought to not only improve the amenity but to maintain some biodiversity values in the highly modified environment. The maintenance or even enhancement of biodiversity in highly modified urban environment is still a highly challenging and expensive task.

The key community focuses of Logan have grown through drawing people from a larger catchment. The shopping centres and facilities now draw people from Beenleigh, Yarrabilba and Flagstone. They are now truly regional centres. This has been facilitated by increased focus on key transit corridors (M1, Mount Lindesay, Gateway, Gold Coast Train Line) which are utilised by individual cars and the small but growing number of flexible public transport options. At the same time freight originating outside Logan (Bromelton, Ripley, Yatala) and inside Logan (Berriba,

Crestmead and Park Ridge) utilise key transport corridors to access Port of Brisbane, Warrego Highway, Gateway, Brisbane CBD.

The large areas of natural vegetation along with key geographic features and many smaller pockets remain. After being protected in successive amendments to the Regional Plan there has only been moderate change to the Regional Landscape and Rural Production areas. The portions of these areas in public ownership are highly valued by the community for use in recreation and for forming green backdrops. The portions held in private ownership are likewise valued for their contribution to amenity of the property and the broader amenity of the City. Council has a major and expensive role in managing and maintaining these areas. Whether it is direct management of paths and facilities to broader responsibilities in weed management, this role has increased dramatically with increased public utilisation of environmental areas including Logan Gardens, Alexander Clark Park, Meadowbank Park, Kimberley Forest Park and Daisy Hill State Forest

Logan's role in environmental regulation and management has grown as has the cost through the application of regulation, education and the use of incentives play a key role in environmental protection. In delivering specific environmental services, Logan has sought and implemented innovative solutions in key areas with partners. These include, total water cycle management in specific areas such as Park Ridge including water reuse, regional solution to solid water disposal and on-demand public transport options and increased surveillance for environmental polluters.

Logan's role in public health management continues. Public health planning is a key component of the City's planning scheme and Council will continue to provide a monitoring, enforcement and facilitation role in delivering public health outcomes to Logan residents. Strong alliances have been formed with other World Health Organisation accredited 'Healthy Cities' and 'Safe Cities'.

Despite this the State Government and Federal Government have increasingly taken regulatory control for many environmental issues. This has been achieved through regulating environmental performance while retaining regulatory responsibility with Local Government. This includes key targets for public transport patronage, self containment of jobs, energy use, storm water retention and quality.

Sources

- *Logan City Council Waterways Strategy*
- *People, Places, Jobs*
- *South East Queensland Regional Solid Waste Management Study*
- *Integrated Water Management Strategy*
- *Pest Management Plan*
- *Annual Report 2004/05.*
- *South East Queensland Regional Plan 2005 - 2026*
- *AC Nielsen Research Pty Ltd, Community Values Interim Report*
- *Logan Public Health Plan*