
Prepared by:
The Deputy Premier and Minister for Regional Planning in accordance with the South East Queensland Regional Plan 2005–2026, through the Department of Infrastructure and Planning and the Environmental Protection Agency.

In partnership with:
The Council of Mayors (SEQ)
Department of Communities
Department of Education, Training and the Arts
Department of Housing
Department of Local Government, Sport and Recreation
Department of Mines and Energy
Department of Main Roads
Department of Natural Resources and Water
Department of the Premier and Cabinet
Department of Primary Industries and Fisheries
Department of Public Works
Department of Tourism, Regional Development and Industry
Queensland Health
Queensland Police Service
Queensland Transport
Queensland Treasury
Queensland Water Commission
Energex
SEQ Catchments Ltd
SEQ Traditional Owners Alliance
SEQ Water

In consultation with:
The SEQ Regional Coordination Committee, the Sustainability and Environmental Reporting Interdepartmental Committee, the State of the Region Working Group and the State of the Region Stakeholder Reference Group.

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Executive summary

The *South East Queensland Regional Plan 2005–2026* (SEQ Regional Plan) aims to manage the growth of the SEQ region in the most sustainable way possible. The SEQ Regional Plan requires an SEQ State of the Region Report to be prepared on a regular basis to monitor and assess the region’s progress towards sustainability.

The SEQ State of the Region Report has been developed based on the SEQ Regional Plan 2005–2026. The data and information contained in the SEQ State of the Region Report has informed the development of the draft SEQ Regional Plan 2009–2031 (draft SEQ Regional Plan). The publication of the SEQ State of the Region Report enables the SEQ community to provide comment on the draft SEQ Regional Plan based on accurate and relevant regional information.

The data is a snapshot in time, showing emerging patterns and trends up until the time of publication. Sustainability indicators are used to describe what aspects of the region are changing and in what direction. Collected over time, they provide a sound baseline to track and monitor progress. Each sustainability indicator has a simple four-colour system to describe its status.

- A red symbol indicates where the status is getting worse, in poor condition, or not sustainable.
- An amber symbol indicates where the status is stable, of concern, or less sustainable.
- A green symbol indicates where the status is improving, in good condition, or sustainable.
- A grey symbol indicates where the status is not currently assessable.

The *SEQ State of the Region Report 2008* provides detailed information on each of the sustainability indicators. It is structured in chapters according to the 12 desired regional outcomes (DROs) of the SEQ Regional Plan 2005–2026. Each chapter includes detailed information on the status and trends for each indicator.

Several successes and challenges have been highlighted in this report. The successes include:

- SEQ continues to offer a good quality of life to residents and visitors.
- The region has good air quality, sustainable fisheries, many scenic areas and extensive protected areas.
- People in SEQ have a generally high standard of health, education and socioeconomic advantage.
- The SEQ Regional Plan has successfully limited urban development to the urban footprint, limiting the negative impacts of urban sprawl.
- The regional economy is strong and continuing to grow.
- Water use has been substantially reduced as a result of cooperation from all residents and businesses.
- Public transport patronage is continuing to increase.

However, several challenges have also been identified, including:

- We are continuing to use more than our share of global resources.
- The region’s biodiversity is threatened by continuing loss of natural habitat and critical regional ecosystems.
- Our ability to enjoy an outdoor lifestyle is limited by the declining availability of open space per capita.
- Some aspects of our lifestyles are unhealthy and may lead to a decline in health status in the future.
- The attractiveness of the region to new residents has led to a decline in housing affordability.
- The gap between Indigenous and non-Indigenous health, education, employment and housing is still wide.
- Electricity use is increasing.
- We are travelling further and more often, resulting in road congestion and environmental impacts.

A summary of the key findings of the report is provided in the tables on pages 4–6.
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<td>Population growth</td>
<td>Residents in SEQ are generally happy with their quality of life. Our economy is growing, but our consumption patterns may threaten our natural ecosystems. Climate change is an emerging issue for the region.</td>
<td>The Queensland Government is investing heavily in securing the future of our region. The implementation of the $844 million ClimateSmart 2050 strategy will ensure that Queensland contributes to meeting a national greenhouse gas emissions reduction target. The Queensland Government has set a target in <em>Toward Q2: Tomorrow’s Queensland</em> to cut by one-third Queenslanders’ carbon footprint with reduced car and electricity use by 2020. Everyone can contribute to regional sustainability by not buying things they don’t need, using less water and energy, recycling, using public transport or walking or cycling, and caring for our native vegetation.</td>
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<td>Back on Track Species Prioritisation Framework</td>
<td>Air quality in SEQ is good and the quality of our waterways is stable or improving. The area protected as national park or marine park has increased, but some of our unique biodiversity is still threatened.</td>
<td>The Queensland Government has invested significantly in maintaining our natural environment. ecoBiz partnerships provide financial assistance to businesses to achieve waste, water and energy-use efficiencies. The nature refuge program provides $9 million in incentives to private landholders to establish nature refuges on their property. The Queensland Government has committed $20 million to the Healthy Waterways Strategy, a comprehensive plan to secure the health of the region’s waterways. The rezoning of the Moreton Bay Marine Park will also ensure the protection of our valuable marine species. The Queensland Government has set a target in <em>Toward Q2: Tomorrow’s Queensland</em> to protect 50 per cent more land for nature conservation by 2020. Everyone can contribute by keeping nutrients and sediments out of our waterways, not littering, composting scraps, treading lightly in our national parks and maintaining your car to reduce exhaust.</td>
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<td>Landscape heritage</td>
<td>SEQ residents and visitors enjoy a diverse range of outdoor recreation activities in public and private open space. Although the total amount of public open space has increased, the amount per person has decreased due to the increasing population. Much of SEQ has a high scenic amenity.</td>
<td>The Queensland Government has set a target in <em>Toward Q2: Tomorrow’s Queensland</em> to protect 50% more land for public recreation by 2020. The Queensland Government is preparing the SEQ Outdoor Recreation Strategy to coordinate the delivery of outdoor recreation services and priorities. The SEQ Active Trails Strategy has provided $8.8 million to fund the development of three regional trails: the Brisbane Valley Rail Trail, Boonah to Ipswich Trail and the Maroochy River Trail. A network of horse trails has also been established since 2005. The Sunshine Coast Hinterland Great Walk and the Gold Coast Hinterland Great Walk have been completed, and work has commenced on great walks from Noosa to Rainbow Beach and in the Conondale Range. The Queensland Government spends approximately $15 million per year on visitor facilities in national parks, state forest recreation areas and marine parks. $14 million has also been allocated for new and upgraded recreational boating infrastructure.</td>
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Much of our key agricultural land is held in small lot parcels, and may be used for purposes other than farming. The level of groundcover has improved, reducing the risk of soil loss. Our regional fisheries are productive and well managed.

### What are we doing?

The implementation of the SEQ Regional Plan prohibits the further subdivision of rural land into smaller lots, maintaining the agricultural productivity of the region. Investment in SEQ Regional Natural Resource Management by the federal, state and local governments in partnership with industry and landholders is improving the sustainable management of our natural resources.

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Agricultural production has been hard hit by extended drought, but agriculture in SEQ contributes significantly to the economy and liveability of the region.

### Strong communities

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Residents in SEQ enjoy a good quality of life. Residents are generally healthy, although the lifestyle behaviours of many people put them at higher risk of chronic disease. About half the adult population are insufficiently active, three out of four are overweight or obese, about one-fifth smoke, one in eight drink alcohol at risky levels, and while half eat sufficient fruit per day for good health, only about one in 20 eat recommended levels of vegetables. Education facilities and standards in the region are good and crime rates are decreasing. Housing affordability is an ongoing issue.

### Engaging ATSI peoples

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Closing the gap on Indigenous equity is a priority in SEQ as it is in the rest of the nation. Health, housing conditions and rates of employment continue to be significant issues for the wellbeing of Indigenous people.

A Coalition of Indigenous Human Services has been established in Queensland to improve outcomes and opportunities for Aboriginal and Torres Strait Islander peoples. Initiated by Indigenous organisations, the coalition will focus on the critical areas affecting Aboriginal and Torres Strait Islander peoples, including health, families, children’s wellbeing, justice, education and housing.
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<td>Urban structure</td>
<td>The Urban Footprint boundary is working well, with the majority of new dwellings located within the urban area. Employment opportunities in regional activity centres are increasing. The variety of housing options needs to increase to meet changing household structures.</td>
<td>The Urban Land Development Authority will plan and coordinate the development of key urban sites in selected areas. The Bowen Hills site will demonstrate transit oriented development principles within the inner city. As part of the review of greenfield land availability within the Urban Footprint, 12 sites have been identified as part of the review of greenfield land availability within the Urban Footprint as priorities to be brought forward in the next six months.</td>
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<td>Labour force and unemployment</td>
<td>SEQ's economy continues to grow strongly, offering high employment and contributing to the knowledge economy and smart state. Exports from the region are increasing, as is the commercialisation of new research.</td>
<td>The Queensland Government has set a target in Toward Q2: Tomorrow’s Queensland that Queensland is Australia’s strongest economy, with infrastructure that anticipates growth, and that the the proportion of Queensland businesses undertaking research and development or innovation by 2020 will increase by 50%. The Queensland Government’s Smart State Strategy aims to allow knowledge, creativity and innovation to flourish. To date, $3.4 billion has been invested in research and development and innovation resulting in 36 new research institutes and 60 000 jobs in knowledge industries across the state. The 2008 strategy includes over $48 million to attract and retain leaders in science, industry and clinical research.</td>
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<td>Energy demand</td>
<td>We are using more energy, due to increased use of air conditioners. Residents and businesses are taking up renewable energy; however, most of our energy is still produced from coal. Both the amount of waste we produce and the amount we recycle have increased.</td>
<td>The Queensland Gas Scheme will increase the amount of energy produced from gas, which produces less greenhouse gas than energy produced from coal. The Queensland Government has recently invested $2.3 million to put recycling bins in public places. EnergyWise provides information and rebates for energy efficient appliances. Everyone can play their part by using energy-efficient appliances, turning off appliances when not in use, using solar or gas power for hot water, and recycling when possible.</td>
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<td>Residential potable water use</td>
<td>A severe drought has reduced groundwater levels and the supply of water in dams. However, our world class efforts to save water have reduced water use and allowed us to maintain a secure water supply for the region.</td>
<td>The Queensland Water Commission’s draft SEQ Water Strategy includes a range of initiatives to ensure a secure water supply into the future. The Queensland Government has established a number of initiatives to help everyone reduce their water use, including the Home WaterWise Rebate Scheme, the Home WaterWise Service, the One-to-One Water Savings Program and a series of education campaigns. Everyone can contribute by adhering to water restrictions and keeping their daily water use within the target level.</td>
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<td>Vehicle kilometres travelled</td>
<td>More people make longer trips in an increasing number of vehicles every year. People are living further away from where they work. They are choosing, through either a lack of current viable options or personal preference, to travel predominantly by single-occupant private vehicle. Fewer people are cycling and walking. Road congestion is increasing on particular critical links during peak hours. However, use of public transport has recently increased. Freight movements have rapidly increased.</td>
<td>Operational and infrastructure improvements to the public transport network under the TransLink Network Plan will reduce the need for high levels of car ownership and reduce the total distance travelled by car. TravelSmart encourages the use of public transport, cycling, walking and car pooling by providing tailored information to encourage voluntary change in travel behaviour. The continued integration of transport and land use planning will improve access to public and active transport options. Everyone can contribute by using walking or cycling—especially for short trips—using public transport when possible and car pooling.</td>
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Introduction

The South East Queensland (SEQ) regional population is rapidly growing and has increased by an average of 1289 people per week between 2001 and 2007.

Such rapid growth increases the need for services and infrastructure, including housing, water, transport, energy, health and recreation. A clear vision for a desired future is necessary to ensure that rapid population growth does not negatively affect the quality of life in the region. The South East Queensland Regional Plan 2005–2026 (SEQ Regional Plan) aims to manage the growth of the SEQ region in the most sustainable way possible. The SEQ Regional Plan sets out the vision for the region, and the strategic directions, regional land use pattern, regulatory provisions, policies and principles to achieve this vision. The basic intent of the SEQ Regional Plan is described through 12 desired regional outcomes (DROs) that have been developed to ensure that the region grows and changes in a sustainable way.

Sustainable development

Sustainable development was defined by the United Nations World Commission on Environment and Development as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’. In Queensland, the Integrated Planning Act 1997 defines ecological sustainability for the purpose of planning and development as ‘a balance that integrates protection of ecological processes and natural systems at the local, regional, state and wider levels; and economic development; and maintenance of the cultural, economic, physical and social wellbeing of people and communities’.

The SEQ region
The South East Queensland State of the Region Report 2008

The SEQ Regional Plan requires a South East Queensland (SEQ) State of the Region Report to be prepared on a regular basis to monitor and assess the region’s progress towards sustainability. The objective of the SEQ State of the Region reporting program is to help guide and inspire actions for positive change throughout the region.

The SEQ State of the Region Report has been developed based on the SEQ Regional Plan 2005–2026. The data and information contained in the SEQ State of the Region Report has informed the development of the draft SEQ Regional Plan 2009–2031 (draft SEQ Regional Plan). The publication of the SEQ State of the Region Report enables the SEQ community to provide comment on the draft SEQ Regional Plan based on accurate and relevant regional information.

The SEQ State of the Region Report has a whole-of-government focus and provides information on the progress of the region towards sustainability. The SEQ State of the Region reporting program tracks the progress of the region towards achieving the desired regional outcomes of the SEQ Regional Plan. However, there are many activities outside the regional planning process that affect the sustainability of the region. The SEQ State of the Region Report does not in itself provide an assessment of the implementation or performance of the SEQ Regional Plan, but it does highlight issues that may need attention in the future.

Sustainability indicators are used to describe what aspects of the region are changing and in what direction. Collected over time, they provide a sound baseline to track and monitor progress. The sustainability indicators in this report were selected during a review in 2006 that assessed the adequacy of information available for State of the Region reporting.

Each sustainability indicator has a simple four-colour system to describe its status.

- A red symbol indicates where the status is getting worse, in poor condition, or not sustainable.
- An amber symbol indicates where the status is stable, of concern, or less sustainable.
- A green symbol indicates where the status is improving, in good condition, or sustainable.
- A grey symbol indicates where the status is not currently assessable.

The information presented in the SEQ State of the Region Report takes into account changes from the past to the present. The data is a snapshot in time, showing emerging patterns and trends up until the time of publication. The SEQ State of the Region Report is a valuable resource that caters for a wide audience, including government decision makers, scientists, students, industry groups, non-government organisations and the general community.

The SEQ State of the Region Report 2008 provides detailed information on each of the sustainability indicators. It is structured in chapters according to the 12 desired regional outcomes (DROs) of the SEQ Regional Plan 2005–2026. Each chapter includes detailed information on the status and trends for each indicator.

Further information

To track progress between reporting periods, a website (SoEOnline) has been developed to provide the most recent information at the indicator level. Information on SoEOnline will be updated regularly. It is available at <www.epa.qld.gov.au/environmental_management/state_of_the_environment/soe_online>.

Data acquisition

The SEQ State of the Region Report presents the best available data and statistics at the time of preparation. Different datasets were collected at different times, but all represent the most current available information. This information has been drawn from a wide range of sources including government and non-government agencies, and industry and research organisations—this input is gratefully acknowledged. Data sources are referenced throughout this report.
Results summary

Sustainability

The SEQ region contains the largest concentration of urban development in Queensland and has one of the highest rates of population growth in Australia. In June 2007 the estimated resident population of SEQ was around 2.87 million, or just over 68% of the state’s population. Sustaining quality of life for the growing population is increasingly challenging.

A healthy, happy and capable community is essential to a sustainable society. The quality of life in SEQ is high; residents rated their personal wellbeing slightly higher than the average Australian. Residents are satisfied with the economic performance of the region, but indicate that there is scope to improve environmental and social conditions. Many residents also feel that life in SEQ is getting worse rather than better, indicating that there is potential to improve wellbeing.

SEQ’s high quality of life depends on the provision of ecosystem services (such as clean water and air) that are derived from the processes and functions of ecosystems. It is important to maintain or improve the local provision of ecosystem services in SEQ. Approximately one-third of the region provides a high level of ecosystem function.

The ecological footprint provides useful information on the impact of our average consumption patterns on our ecological support systems. It provides information on whether our average pattern of consumption is sustainable in a local, regional, national and global context. The average ecological footprint for the population of SEQ for the year 2003–04 was 7.27 global hectares (gha) per person. This suggests that SEQ residents are using more than their share of resources and contributing disproportionately to global over-consumption compared with the average global citizen (2.2 gha per person).

The genuine progress indicator (GPI) provides information on the sustainability of economic activity in Queensland. On a per capita basis, the state’s GPI reached a peak in 1999 of $29,271 and declined between 1999 and 2005. This suggests that extra social costs (increasing poverty and debt) and environmental costs (land degradation and energy consumption) associated with a higher level of consumption may exceed the value of the benefits from additional economic growth.

A range of simple and effective actions can reduce our footprint and increase our GPI without reducing our standard of living. These include:

- not buying items that we do not really need
- turning off lights and appliances to reduce electricity use
- recycling and reusing products rather than discarding them
- rehabilitating degraded ecosystems
- preserving essential ecosystem functions.
Comments from experts

Professor Ian Lowe—Emeritus Professor, School of Science, Griffith University

Warning bells are ringing.

As the summary puts it, SEQ residents are ‘relatively satisfied’ with the region’s economic performance, see ‘scope to improve the state of the environment and social conditions’, and on average feel that life in SEQ is getting worse. The data confirms this subjective impression.

The genuine progress indicator for the state has declined since 1999, suggesting social and environmental costs of growing consumption are exceeding the benefits. While there are not separate figures for SEQ, the results will be similar because the region has such a large fraction of the state’s population. Lowest levels of measured satisfaction are with the environment and ‘community connection’. The report notes a widening disparity in incomes between the rich and poor, increasing debt levels and a range of serious environmental costs of recent expansion.

The changes in ecosystem function between 1991 and 2004 should also be a source of concern. Ecosystem function improved over about 0.57 million ha and decreased over 1.35 million ha, mainly as a result of vegetation clearing. If the population of the region continues growing rapidly, there will inevitably be a further decline in local ecosystem function.

The average ecological footprint in SEQ is 7.3 gha per person. Given that the world’s biologically productive land and sea surface area equates to about 1.8 gha per person, local consumption levels are many times the sustainable level. The biggest component of the local footprint is residential building consumption, followed by electricity supply—the reverse of the national figures. So the construction of houses, which are larger than needed and very inefficient by modern standards, is a primary driver of unsustainable consumption.

As beef cattle account for more productive land than all other food products put together, changes in diet could dramatically reduce our demand on natural resources.

Professor Joe Baker—Chief Scientific Adviser, Department of Primary Industries and Fisheries

The general objective of this report is to assess progress towards sustainability for the SEQ region according to Queensland’s principles of sustainability.

A judgment on progress towards sustainability must include all the desired regional outcomes. To attempt to judge sustainability using only four indicators (ecological footprint, ecosystem services, quality of life and genuine progress indicator) does not give a comprehensive overview.

However, the concept of an ecological footprint is appealing in that it allows us to compare our impact with that of other regions, and to set targets for a continuous reduction of our impact on resources and ecosystems.

Ecosystem services require careful definition. Once we understand the different types of ecosystem services (supporting, provisioning, regulating and cultural) and their relationships to our wellbeing, we will realise the enormous impacts of human actions and activities on these essential services, and the need for change from the ‘convenience society’ to the ‘ecologically aware society’.

Knowledge of ecosystem services would certainly encourage practices to reduce our ecological footprint!

There is no doubt that our ecological footprint must decrease, and more quickly than proposed here. The ‘red’ assessment for this indicator should be interpreted as a call to action for the SEQ community.

The assessment of ‘amber’ for ‘ecosystem service provision’ is hopeful more than realistic. Longer term measurements are necessary to justify this assessment, especially with the predicted population growth and ecosystem modification for SEQ.

The consideration given to quality of life is subjective. It is optimistic to rate the ‘quality of life’ assessment as ‘green’ for SEQ, based on what is a one-off ‘snapshot’ that does not include changes over time.

The genuine progress indicator is an attempt to recognise social and environmental costs associated with growth, and appears to have some merit, expressed in constant dollar terms. The ‘amber’ rating is appropriate.

The critical factor in assessing progress toward sustainability is to be able to reliably and reproducibly assess change over time. This requires an agreed set of indicators, used in the same manner, year after year, covering all desired regional outcomes.

This is a beginning of a long-term commitment.
Natural environment

Our future depends on sustaining healthy living systems where the environment, society and the economy are all in good condition and all work together. While a rapidly growing population and changing climate are placing increasing pressure on SEQ’s environmental assets, many positive actions have been taken to ensure that the total productive capacity and ecosystem services of the region are sustained, both now and into the future. Nonetheless, some challenges remain.

Maintaining our precious biodiversity in SEQ is central to providing humans with many economic, social and physical benefits. Preserving, rehabilitating and connecting our areas of remnant native vegetation—an essential habitat for many species—will improve regional biodiversity and increase its resilience to climate change. Extending the protected areas also plays a critical role in this agenda, for example the rezoning of the Moreton Bay Marine Park will further protect the region’s marine area.

SEQ’s biodiversity is under threat. The Back on Track Species Prioritisation Framework prioritises the state’s native species to guide their conservation, management and recovery. In SEQ 86 species (including the red goshawk and the eastern bristlebird) have been identified as priority species for management action. Implementing the Koala Plan will help to protect the region’s declining koala population.

Clean air and water are two of the fundamental services provided by SEQ’s environmental assets. Monitoring data shows that the region generally has good air quality. Maintaining clean air into the future presents a challenge for a region with a rapidly growing population that has a correspondingly high rate of motor vehicle usage—the greatest source of air pollution in the region.

The region’s water quality is also generally stable, although the pressures of a severe drought and increasing urbanisation have seen declines in the ecological health of some catchments. Significant upgrades to waste-water treatment plants have resulted in a marked reduction of nutrients being released into SEQ’s waterways.

Climate change represents a major risk to the state, affecting the sustainability of our environmental assets—detrimental consequences are predicted for biodiversity and natural resources. The average temperature in the region has risen by one degree since 1910, a trend that is linked to greenhouse gas emissions and is generally consistent with global temperature rises. The challenge of reducing our greenhouse gas emissions and moving to a low-carbon society, as well as responding to the effects already evident as a result of past emissions, is a key focus of state government policy.
Comments from experts

Professor Hugh Possingham—Director, Centre of Applied Environmental Decision Analysis, The University of Queensland

Our economy and society are entirely dependent on the environment in which we live. Given this fact, it is always disappointing to see that our knowledge of the state of the environment lags well behind our knowledge of the state of the economy.

Aside from the rigorous and user-friendly indicators on our waterways, plus some solid data on air quality, we know very little about the state of SEQ’s environment.

Broadly speaking, there are two kinds of environmental indicator—indicators of the actual state of the environment, and indicators of the state of pressures on those states. For example, SEQ air quality (green, going well) is an actual environmental state, and pollutant emissions to the air (amber) is the state of a pressure. While some would say that actual air quality is the crucial indicator, it is useful to know the state of pressures because this tells us what we can manage to improve about the actual state (in this case, emissions).

In the area of biodiversity, our knowledge of trends in the environment is particularly poor.

This report details two actual states of biodiversity—the number of threatened species in different categories of threat, and the population sizes of four iconic threatened species. The former is well known to be a good but unresponsive indicator of the state of biodiversity; it can take decades to improve the threat status of a species. Population sizes are responsive and inform management and policy-based decisions, but good data is scarce for many species.

It is high time we set about building a credible set of regional environmental accounts. For example, using Birds Queensland and Birds Australia data we have shown that it is possible to get statistically credible trends in the status of hundreds of bird species in SEQ—data almost as good as water quality data. Of course getting the regional environmental accounts sorted is only the first step; it is then our responsibility to balance the books as quickly as possible!

Mr Simon Baltais—Secretary, Queensland Conservation Council Incorporated, SEQ Healthy Waterways Champion 2007

The SEQ region continues to experience high growth and at the present rate the population will double within 35 years. Servicing this increased urbanisation has seen substantial losses of remnant vegetation (only 26% remains), bushland and open spaces. Only 13% of SEQ is in protected estates and it is predicted that by 2026 the same amount of area will be urbanised—a loss of a further 60 000 ha of habitat. While it is said that 80% of SEQ is protected from urban development, it is NOT protected from development due to urban growth. Clearly, the lack of control on growth is having a significant negative impact on biodiversity.

The SEQ Regional Nature Conservation Strategy is acknowledged as a positive step towards biodiversity protection, but specific legislation to enforce biodiversity protection does not exist.

The Vegetation Management Act 1999 has not fully protected endangered and of-concern ecosystems in SEQ, and the lack of prioritisation between state planning policies has resulted in conflicts and negated or diminished biodiversity protection objectives.

The SEQ koala population has declined from ‘common’ to ‘vulnerable’, with that of the Koala Coast declining by 26% in seven years. It is estimated that unless further action is taken, the Koala Coast urban koala population will be extinct by 2020 and the rural population effectively extinct by 2043.

Development continues to take precedence over protection of amenity and biodiversity along SEQ’s coastline. The Port of Brisbane expansion, a second runway, freshwater extraction, marina expansion, as well as urban encroachment onto floodplains and SEQ’s remaining coastal and rural/bushland landscapes demonstrate the weakness in coastal resource protection legislation.

Until recently less than 1% of Moreton Bay was fully protected, though this has increased to 16%. However, this is still well short of the 30% recommended by contemporary scientific literature. Turtle deaths in Moreton Bay are high, with 131 deaths reported between September and December 2007, and Moreton Bay dugong fatalities are the highest in Queensland. Coastal planning remains incomplete and poorly linked to the planning cycle, and lacks performance indicators to encourage improvements. Planning for climate change along the coast is ad hoc and limited.
Regional landscapes

The SEQ Regional Plan requires that the regional landscape is managed for a range of values, including agriculture, water quality, nature conservation, scenic amenity, ecosystem services, heritage and outdoor recreation. These values play an important role in the beauty and liveability of the region.

Scenic amenity is a measure of the relative beauty of the parts of the landscape that are most easily seen. Approximately 15% of SEQ has high scenic amenity, a further 37% has locally important scenic amenity, and only 1% of SEQ has very low scenic amenity. Information on the relative scenic amenity of different areas can be used to plan and manage development to maintain the region’s beauty.

Outdoor recreation is an important part of the lifestyle in SEQ, and is one of the factors that attracts people to the region. Opportunities for outdoor recreation are provided on public lands, waterways and through privately owned businesses. The area of land owned by the Queensland Government in SEQ is approximately 427 000 ha. This equated to 0.15 ha per person in 2007 (or about 1500 m²). The total amount of land available has increased slightly from approximately 416 000 ha in 2001, but the amount available per person has decreased due to the rapid increase in population.

Large numbers of people in SEQ participate in a variety of outdoor recreation activities. Most people report that they would like to undertake outdoor recreation in a place slightly more natural than where they currently go. Picnicking was the most popular outdoor recreation activity in 2007, with 58% of residents participating an average of three times a year. Fifty-four per cent of residents participated in water activities, and 35% in walking.

Landscape heritage areas are significant due to their aesthetic, historic, scientific, environmental or social values to present, past or future generations. The perception of SEQ as a single region is relatively recent and more work is needed to combine existing narratives into the story of the SEQ landscape as a whole. Some mechanisms for protecting cultural heritage have been applied to recognise the cultural values of landscapes. The Scenic Rim, as part of the Central Eastern Rainforest Reserves, is SEQ’s only World Heritage listed landscape. The Glass House Mountains National Landscape is listed on the National Heritage Register, and over 30 different landscapes are included on the register of the National Estate. Binna Burra cultural landscape and the Point Lookout foreshore are also listed on the Queensland Heritage Register.
Comments from experts

Associate Professor Darryl Low Choy—Griffith University School of Environment and Chair of the Regional Landscape and Open Space Advisory Committee

On the right track but ...the prospects and the fortunes of metropolitan/urban areas and their regional landscape contexts are intimately linked. A prosperous urban area requires a robust regional landscape.

However, none of the components of the regional landscape are the core business of Queensland state agencies and, in most instances, they are only an associated responsibility of low priority. Hence, a collaborative approach is essential to the sustainability of SEQ's landscape setting, which constitutes over 80% of the region.

Unfortunately, history demonstrates that agencies are notoriously incapable of long-term cooperative action when it comes to collaborative implementation of agreed policy. Cases-in-points include open space, outdoor recreation, cultural landscape heritage, and scenic amenity—all essential elements of the regional landscape that contribute to our quality of life and the region's liveability.

The incorporation of a 'regional landscape' concept and framework into the regional plan is a quantum leap forward, putting the SEQ Regional Plan at the forefront of regional planning around the globe. However, a central agency with a coordination mandate and legislative backing is essential. Without one, the regional landscape and its components will be hidden from government attention and languish in a backwater of inaction.

In terms of the SEQ State of the Region Report, it is unfortunate that for expediency the selection of indicators has had to rely on the availability of appropriate data held largely by government agencies. Consequently, it is difficult in this first iteration of reporting to gauge if progress is being made. It is imperative to immediately agree on appropriate indicators of regional landscape condition and to fund and implement the necessary monitoring programs.

These undertakings are no less important than the urban initiatives that have received priority attention already. The region’s future and the maintenance of its high degree of liveability are at stake.

On the positive side, it is encouraging to note that five of the former local authorities in SEQ have addressed scenic amenity management. Also of note is the current commitment by the state to a long overdue Outdoor Recreation Strategy and its imminent public release.

The true test of state and local government commitment will be their support for its implementation, including the allocation of funds for its identified environmental and other infrastructure requirements.

Conclusion: the process is absolutely right but the coordinating mechanism to drive the process needs to be re-established and the products emanating from the process need improvement.

Professor Peter Spearritt—Professor of History, The University of Queensland

The natural beauty of SEQ is central to how South East Queenslanders think about themselves and how the region, from Moreton Island to the rainforest of Lamington National Park, promotes itself to the rest of the world. But because of the nature of subdivision and the amount of arable land, much of the region exists in relatively small land parcels that, were it not for the SEQ Regional Plan, would all be fair game for new suburban subdivisions.

With the rapid growth of the Sunshine Coast and the equally rapid growth of the Gold Coast, these two car-based linear cities are now linked inextricably to Brisbane, by the Bruce Highway, the Gateway Bridge and the Pacific Motorway. In 2003, the Brisbane Institute and The Courier Mail ran a series of public meetings about the open space issue in SEQ, striking a profound chord with the public. The Brisbane Institute found green space to be at a premium with only 17% of SEQ held in national parks and state forests, in marked contrast to Greater Sydney with 43%, much of it in large national parks.

The push to curb suburban sprawl by increasing dwellings and population densities in existing suburbs creates new pressures on open space. More and more community facilities are encroaching on parkland when they would be better located at the centre of the new developments.

Because of population growth we need to cherish and increase our open space, from national parks to recreation areas. If we can't retain the few remaining green corridors then our 200-km city, already a functioning entity, will become Australia's longest strip of continuous suburban sprawl. In that eventuality, it won't be nearly such an attractive environment to live in. And we will be compounding the water supply and carbon emission issues that currently confront us.
Natural resources

Natural resources include natural assets such as land, fresh and marine waters, air, forests, minerals and extractive materials, native animals and plants. They underpin the region’s major economic activities, supporting a diverse range of industries that rely on the quality and accessibility of these resources. Natural resources also provide lifestyle and economic benefits to the region through outdoor recreation, ecotourism and related activities.

Contemporary thinking in natural resource management has evolved from regarding the natural environment as a set of discrete natural resources or assets to be exploited individually, to the more holistic concept of ecosystem services. Ecosystem services provide a framework that links access to both natural resources and services (such as clean air and water, food and recreational opportunities upon which the population depends), to protection and enhancement of the supporting ecosystems.

Population expansion in SEQ has created a demand for land for urban development (including associated infrastructure such as transport and service corridors) and ‘small lot’ rural-type living. Change in the balance of land between urban and agricultural uses is cause for concern because it threatens the viability of industries dependent on agricultural land. This change also reduces lifestyle quality and other benefits provided by agricultural land to the broader community.

Land that is most vulnerable and where the effect of this change is greatest is grazing land in small lots and good quality agricultural land. The Queensland Land Use Mapping Program found that in 1999, pasture lands occupied 803,330 ha of the region of which 34,290 ha were in lots of less than 5 ha. Good-quality agricultural land occupied 376,480 ha of the region of which 44,010 ha were in lots of less than 5 ha.

Long-term use of land at levels beyond its capability or for purposes for which it is unsuited leads to degradation. In SEQ, pressure for this is created by factors such as loss of agricultural land (as identified above), which increases demands on land remaining in production, decline in terms of trade for farming, loss of experienced land managers, and the recent extended drought.

Groundcover vegetation protects soil from erosion and the long-term trend in the proportion of ground covered is an accepted indicator of land condition. Satellite-based monitoring of groundcover in SEQ has found that 9430 ha of grazing land consistently have less than 40% cover, the level below which research has identified it is likely to suffer degradation.

The region’s coastal resources support a significant commercial and recreational fishing industry. Overall commercial and recreational fish catches are decreasing due to a decline in commercial fishing effort and lower participation rates in recreational fishing. The Fisheries Act 1994, Fisheries Regulation 2008 and Fisheries Management Plans manage fishing pressure in a particular fishery in accordance with the principles of ecologically sustainable development. Declared Fish Habitat Areas have been effective in protecting inshore and estuarine fish habitats that are important for sustaining local and regional fisheries.
Comments from experts

Mr Gordon French—Chair, SEQ Catchments Ltd

SEQ possesses some of the best agricultural soils in the world with the capacity, given a favourable climate and reliable supplies of good quality water, to provide food and fibre to the growing population of the region and beyond. These agricultural areas need to be protected, enhanced and used sustainably to buffer the region against global extremes such as climate change and the increasing price of oil.

Currently key agricultural areas, including grazing land, are under increasing threat of alienation and loss of productivity through development. Land can be physically lost to urban encroachment or alienation through subdivision. Either way these unique areas are lost to future generations.

Pressure on the remaining available land can also promote unsustainable land use particularly where marginal land is used beyond its capability. We need to understand the capability of our landscapes and manage them appropriately.

The rich soils of the region require monitoring and management to ensure they maintain their productive capacity. Agricultural industry and research and funding partners are actively working to enhance the management of agricultural land through soil health and property management programs.

The health of our precious waterways including Moreton Bay is directly impacted by land management in the catchments. The maintenance of ground cover to reduce sedimentation is a high priority. Land managers are enhancing grazing land management and a concerted effort is also required where intensive urban development exposes soil to erosion. Land use that disturbs acid sulfate soils releasing sulfuric acid and other soil and water contaminants also requires controls and monitoring.

Many exciting initiatives are underway to proactively manage the land resources of SEQ. However, further support and coordination of effort is required across industry, research and government if we are to report favourably against the indicators in this report into the future.

Associate Professor Bob Beeton—The University of Queensland School of Natural and Rural Systems Management

SEQ is suffering from poor decisions made in the early 1970s to abolish land use planning initiatives then in operation. It will be very difficult to put the genie back into the bottle. Coastal ‘suburbanisation’ is a social process driven by demographic and economic change.

Nowhere is this more obvious than in SEQ where inward migration and lifestyle change have placed enormous pressure on the coastal resources. Agricultural land near urban areas is gone and growth is proceeding inland on a broad front. This trend will continue for some time. House sizes are increasing and the number of persons occupying an individual dwelling is decreasing. The data on material demand and the difficulty of securing the resource is both a resource management issue and an indicator of pressure. We are creating an urban form that is not conducive to transport or energy efficiency while removing components of the natural resource base.

Two things are obvious: the recently introduced planning systems are in part confounded by already approved development; this will further erode the resource base. And economic pressure on farmers means that many see development as the only economic option for their individual survival.

While not reported in this document, the productivity of peri-urban and agricultural Australia is high and accounts for much of Australia’s vegetable, fruit and poultry production.

The progressive loss of these areas will simply add further transport and energy costs to production as it moves inland into areas already under pressure from water availability. Overall, this and other freely available data suggest that governments are confronted with a stark choice. Either change the urban form of SEQ and better manage its natural resource base or pay the enormous price of the infrastructural adjustment that will be necessary.
Rural futures

The rural areas of SEQ cover approximately 1.9 million ha or about 84% of the region. Land use is a mix of agriculture (sugar-cane, horticulture, fodder, cropping and pastures), conservation, forestry and urban activities. Over 5500 agricultural businesses manage 65% of the land for animal and crop production. In 2006 the population of the rural areas and rural living areas was about 287,800 people (10% of the region’s population) and an additional 58,400 people (2.1%) lived in rural towns and villages scattered across the region outside the major urban centres.

Rural communities and industries are facing many challenges. Key issues affecting the rural sector in SEQ include increased global competition, the accessibility and cost of water, the availability and affordability of skilled labour, the price of land, uncertainty surrounding climate change and the ongoing availability of cheap oil.

SEQ’s farming and resource sectors employ around 1.8% of the region’s workforce, while the value of agricultural production accounts for just 1.2% of the gross regional economy. However, the total farm-dependent economy (including inputs, transport and processing) in SEQ is worth $8 billion, or 11.4% of regional Gross Domestic Product. SEQ’s agricultural economy makes up about 12% of the state’s agricultural economy and 3% of the national agricultural economy.

Agricultural production in the region includes broadacre cropping (cereals, sugar cane and other crops), horticulture (fruit, vegetables and amenity horticulture such as flowers, turf and plant nurseries), and livestock (pigs, meat cattle, milk cattle and poultry). As a result of the drought, total farm income has dropped and fewer people are employed in agriculture. The outlook for the future is also uncertain.

The area and volume of agricultural production in the region has declined during the period 2000–01 to 2005–06. The area planted for sugar cane in SEQ declined by 60% between 2000–01 and 2005–06, due primarily to the closure of the Moreton Sugar Mill at Nambour in 2002. There is a trend towards an increasing number of smaller enterprises operating in SEQ than in 2001.

There have been fewer subdivisions of rural land into smaller lots since 2004–05. This slowing trend suggests that the regulatory provisions restricting subdivision in the Regional Landscape and Rural Production Area are taking effect, although ongoing monitoring will be required to confirm this trend.
Comments from experts

Mr Gary Sansom—President, Queensland Farmers’ Federation

Progress towards ensuring a sustainable future for agriculture in SEQ has been somewhat limited during the past three years. A number of external factors has also contributed to the overall decline in both the area and volume of agricultural production in the region during this period. Any downturn in agricultural production will inevitably result in a flow-on effect to rural towns.

In order to remain viable and retain their rural character, these towns must be maintained as rural service centres, rather than dormitory suburbs to larger urban areas. It will be a challenge to maintain an acceptable level of health, education and transport services to these centres without a strong link to a prosperous agricultural sector.

While the SEQ Regional Plan can do little about challenges such as droughts, cost structures, labour shortages and market forces, it can provide a planning environment that enables primary producers to invest with confidence in the future, and to respond positively to the many challenges faced. Urban encroachment remains one of the single biggest challenges, and imposing restrictions on subdivision does not satisfactorily address this problem. Overall, there is much more work to be done in the area of rural and agricultural planning.

Some progress has been made towards the development of the SEQ Rural Futures Strategy. A Rural Futures Committee has been established and a draft strategy prepared. This document has not yet been released for public comment and, as it has yet to be formally endorsed, there will be a delay in budgetary allocation for important projects.

On a positive note, a model for precinct planning has been developed; trials are underway, and dialogue and consultation with the agricultural and rural sectors are gradually increasing. There has been positive progress on the important issue of water infrastructure and planning, and many producers are looking forward to making a positive environmental and financial contribution to the region in the future.

In the next iteration of the SEQ Regional Plan, the agricultural sector will be looking for an acknowledgment of the significant contribution it makes to the wealth and wellbeing of the region, together with political support for projects that foster a strong rural future for SEQ.

Mr Mike Grundy—CSIRO Theme Leader, Managing Australia’s soil and landscape assets

The rural lands of SEQ can seem a calm escape from the frenetic change occurring in and around the urban areas. As well as bringing substantial income to the region and supplying a high proportion of our food needs, SEQ’s rural lands also provide a diverse and attractive backdrop for the region’s growing population.

The calmness is misleading—the pressures and impacts on these lands are as broad ranging and as significant as at any time in their history.

Local pressures are well known: high levels of sustained population growth with consequent high land prices, an historic and sustained dry period with substantial losses of access to irrigation, and substantial fluctuations in commodity prices are increasing in influence, though these are arguably a continuation of trends.

There are also new trends. The terms of trade for Australia’s farmers have recently reversed a long-term negative trend; it seems likely that positive trends will continue for some time.

The impact of climate change (both its direct effects on temperature, rainfall and climatic variability and the impact of society’s response to this challenge in adapting to change, in sequestering carbon and reducing emissions) will also change our thinking on the use of these lands and increase our reliance on our farmers’ capacity to respond. And the world needs more food.

The indicator paper on rural futures provides an incomplete picture of the health of these regions. What is reported is sobering. Substantial change is occurring within and between industries in response to the pressures on farmers. Overall we are maintaining the amount of rural land and a strong rural population, but the symptoms of the various pressures are emerging.

The importance of these lands to SEQ and to Queensland more broadly will increase—a follow-up to this assessment could evaluate resilience across rural SEQ and look for policy support to increase the capacity to respond to the changing environment for rural land uses.
**Strong communities**

Vibrant and sustainable communities link an individual’s wellbeing and quality of life with that of the broader community by facilitating equitable access to services, infrastructure and participation in society. Overall, based on a wide range of indicators, life is getting better in SEQ.

However, two exceptions indicate a deterioration in the outlook. Despite improvement in many community-level indicators, there are concerns about the decrease in healthy lifestyles and housing affordability in SEQ. Further deterioration in these indicators is expected to impact quite negatively on the sustainability of health and wellbeing, and social and economic outcomes in the region, particularly given the pressure of population growth and the ageing population. This negative outlook is not restricted to SEQ.

Housing affordability declined sharply across Australia between 2001 and 2003, and has declined steadily since then to historically low levels. Using a number of nationally accepted measures of healthy lifestyles (such as the prevalence of smoking, obesity, physical activity, alcohol consumption, nutrition, breastfeeding and sun-safe behaviours), there is concern that future health outcomes are being compromised. The issues of concern in SEQ are also of state and national importance, and a number of state and national strategies reflect the widespread concern about the housing affordability trend and the need to adopt healthy lifestyles.

A measured improvement can be seen in a range of healthy community indicators for SEQ:

- Life expectancy is increasing.
- Education outcomes are improving, including primary school benchmarks, school retention rates, and Year 12 transitions.
- Crime rates are declining.
- Socioeconomic disadvantage is decreasing.
- Knowledge of cultural heritage is increasing.

The improvement in these indicators suggests that the outlook for SEQ is strong and sustainable.

There are two aspects of life in SEQ where there is uncertainty about the outlook—social capital and mental health. Both issues are conceptually complex and difficult to measure, but critical to personal and social wellbeing. Efforts to better understand, assess and address related issues at a community level are important and ongoing.

In summary, SEQ as a region is making progress towards achieving strong and healthy communities. While the outlook is mostly positive across a range of issues and indicators, improvement is required in housing affordability and the adoption of healthy lifestyles.
Comments from experts

Professor John Lowe—School of Health and Sports Sciences, University of the Sunshine Coast

The evidence that developing strong communities improves the health of community members has been clearly demonstrated in scientific literature, and is now becoming widely accepted. Healthy communities promote healthy lifestyles and mental health in members.

The State of the Region Report 2008 adequately reviews the current literature and makes a solid case for the need for healthy, strong communities.

This report indicates that the improvements in health will require an increased focus on five key areas: health and public policy, creating supportive environments, strengthening community action, developing personal skills and increasing health services. These key areas are taken directly from the Ottawa Charter—signed over 20 years ago, it remains one of the most fundamental documents ever produced on public health. However, more than two decades later, the charter is still being used as a launching platform, rather than to implement and evaluate current programs.

How can this country, one of the wealthiest nations in the world, not have been able to achieve substantial advancements in the five key areas? Why have we not made substantial progress in these five areas? The report makes projections for the next 19 years, until 2026.

If SEQ, which possesses both the necessary fiscal and human resources, fails to meet these projections, it would be a very concerning outcome.

Unfortunately, the report lacks a clear plan for accomplishing these goals across the sector. What is required is a whole-of-government, community and academic partnership that addresses not only what needs to be done, but that also implements and evaluates a credible plan. Health, a primary factor underling all economic growth, needs to be given priority, rather than being seen as just an afterthought. We need to shift our resources to focus on the prevention of early death and disability to improve the quality of life of the residents in SEQ.

Associate Professor John Minnery—School of Geography, Planning and Architecture, The University of Queensland

Assessing the performance of a region in terms of social rather than physical outcomes (such as assessing community health rather than levels of river pollution) is challenging. There is often disagreement about what indicators should be used and how they should be measured. The 13 assessed indicators used in this report are a good first step towards better understanding what is happening in the SEQ region and the extent to which the desired outcome of stronger communities is being achieved.

The indicators used cover a range of issues (although one must question why four of them relate specifically to education). By implication they are driven by population ageing—something that implies both greater proportions in the older age groups and smaller proportions in the younger age groups. Population changes such as these will continue to have a profound effect on the region, so continued monitoring of the region’s performance is critical.

Given these and related changes, it is concerning that housing affordability and healthy lifestyles are the two major problem areas identified by this monitoring process. They clearly require serious and immediate policy responses.

Likewise, hidden within some of the ‘green’ assessments are indicators that should not be regarded with complacency. For example, while crime rates are decreasing, rates of crime against the person are decreasing in only some of the local government areas in the region.

And the amber status for social capital and mental health suggests the need for additional active policy intervention. Overall the indicators presented in relation to this desired regional outcome show there are serious issues of immediate concern in housing affordability and healthy lifestyles, as well as potential concerns in relation to social capital, mental health and some of the more detailed factors behind some of the ‘green’ assessments.

Strong communities underpin a strong region, both in terms of reality and public perceptions. There is room for optimism but not complacency in relation to strong communities.
Engaging Aboriginal and Torres Strait Islander peoples

The socioeconomic gradient of wellbeing, and the burden and distribution of disadvantage for Indigenous people and communities in Queensland are important considerations for the sustainability of the region.

Taken as a whole, the evidence on socioeconomic status (SES) and wellbeing in Australia is unequivocal. The socioeconomic gradient of wellbeing means that affluent populations have better wellbeing and lower mortality than poor, disadvantaged populations. In general, wellbeing increases as affluence increases.

Many of the factors affecting wellbeing are determined by the social, economic and political environments in which people live. People and communities at lower levels of the socioeconomic hierarchy fare significantly worse in terms of their health, opportunities for personal and social development, and overall wellbeing.

Specifically, people variously classified as ‘low’ SES have higher mortality rates for most major causes of death; their morbidity profile indicates that they experience more ill health (both physiological and psychosocial); and their use of education, health and community support services suggests that they are less likely to act to prevent disadvantage, injury and disease or detect it at an early stage. Moreover, socioeconomic differences in wellbeing are evident for both females and males at every stage of life (birth, infancy, childhood, adolescence and adulthood) and the relationship exists irrespective of how SES and wellbeing are measured.

The information presented here confirms that the relationship between low SES and reduced wellbeing and opportunity is more pronounced for Indigenous (Aboriginal and Torres Strait Islander) peoples who have greater risk of ill health and early death. In almost every dimension, Indigenous Queenslanders experience a higher burden of disadvantage, disease and injury than other Queenslanders.

The proportion of SEQ students who achieve national literacy and numeracy benchmarks is lower for Indigenous students than for all students; however, the gap between the two groups is wider outside SEQ. Life expectancy is 15 to 20 years lower, and the rates of serious chronic diseases, such as diabetes, are increasing much faster than in the non-Indigenous population.

While there have been some gains in Aboriginal and Torres Strait Islander wellbeing over the last generation, much of the improvement (for example in neonatal and infant wellbeing and infectious diseases) has been offset by increases in health conditions such as pneumonia and cardiovascular disease affecting young and middle-aged men and women.
Comments from experts

Mr Graham Dillon—Ngarang-Wal Elder

This desired regional outcome promotes the engagement of Traditional Owners in business about their country. That engagement is not simply a matter of good governance as with other stakeholders. It is a right in common law after the Mabo Decision and by statute under the Native Title Act 1993.

Traditional Owners have now united to address the degradation of our traditional countries and our cultural heritage sites and landscapes. Our efforts were initially supported by Natural Heritage Trust (NHT) and funds from the regional natural resource management (NRM) bodies.

In 2005, we incorporated the SEQ Traditional Owners Land and Sea Management Alliance (SEQTOLSMA), representing SEQ Traditional Owner groups. SEQ Catchments (SEQC) has continued its financial support, EPA and the Department of Natural Resources and Water (NRW) provided in-kind support.

SEQTOLSMA has completed a broad-ranging Regional Cultural Resource Management Plan and Investment Strategy dealing with organisational capability and our concerns in cultural/natural resource management issues.

We aim to transform public perceptions and values, leading to a stronger response to the region’s environmental challenges. We are now involved in many of the planning and decision-making processes of SEQC, NRW and EPA. We contribute to monitoring delivery of the SEQ Regional Plan.

EPA has now boosted our growing role. It supports two of our three staff positions. It enables us to participate in the Healthy Country initiative, promoting a model of broader Traditional Owner engagement in small parts of three SEQ catchments. We participate in project planning, the promotion of Indigenous work teams and contractors for NRM works, developing community understanding of the traditional condition, and use of the country and the history of its changes. We will also promote community understanding and conservation of culturally significant heritage sites. Sadly, we still lack the resources to extend this model across the whole region.

Professor Boni Robertson—Office for Indigenous Community Engagement, Griffith University

The engagement of Aboriginal and Torres Strait Islander peoples is a desired regional outcome because it reflects the need for stronger inclusion of Indigenous people in the roles that shape people’s lives.

The extent of inclusion of Indigenous people in planning and decision making is lower than for all other groups. The framework of any document designed to address the social, economic and cultural needs of Indigenous peoples, should have in its text, a commitment to both cultural and professional integrity enshrined in the goals and objectives of future strategies, and in the development of ongoing interventions and projects.

An Indigenous framework is critical to the engagement of Indigenous people and to the development of mutual and collaborative projects designed to address the myriad of issues that impact on the wellbeing of Indigenous people.

The engagement of an Indigenous epistemology is an essential aspect of the State of the Region Report, if it is to be of relevance to the Traditional Owners and the families they represent. This is particularly important to the needs of Indigenous Australians, given the mix of people who will be affected, such as single parents, young professionals, elders, youth and young children.

All of these groups have both generic and unique needs that are critical to the objectives of the State of the Region Report and the SEQ Regional Plan.

With the high prevalence of Indigenous children, youth and young adults in the SEQ population, it is of concern that the issues of education and illiteracy are not highlighted as major issues in the report. This, coupled with well-known factors of student truancy and bullying within schools, poses the greatest challenge for both Indigenous and non-Indigenous participants involved in the development and implementation of the SEQ Regional Plan. The synergy between the social, cultural and emotional wellbeing of families and the education of the children and youth is an important determinant to the success of strategies engaged to address the needs and aspirations of the Traditional Owners and the broader Indigenous community.

Housing is an area that also warrants greater attention within both the SEQ Regional Plan and this report. This is a significant factor that warrants more rigorous consideration when the high level of poverty is constantly raised as a prominent feature of Indigenous communities.

This is even more critical given the high prevalence of single-parent families and the lack of affordable homes for purchasing or renting in the region. This in turn raises the question about the development of strategies in which Traditional Owners can actively engage, in order to provide both short and long-term security for their families, which is sustainable and economically viable.

Overall, there is a need to uphold a commitment to both cultural and professional integrity in the context of the SEQ Regional Plan, and to develop an open and honest dialogue between the Traditional Owners and other participants, if the above-mentioned issues are to be appropriately dealt with and addressed.
Urban development

The primary purpose of the SEQ Regional Plan is to provide a sustainable growth management strategy for the region to the year 2026. In particular, it details a set of principles for urban development that support a compact, well-serviced and efficient urban form.

The proportion of new dwelling approvals in SEQ situated within the designated Urban Footprint has increased steadily since the introduction of the SEQ Regional Plan. In the year to September 2005, that proportion was 93.3% of approvals within the urban footprint, increasing to 94.4% in 2005–06, and increasing slightly again to 94.7% in 2006–07. For Brisbane City alone it reached 98.3% by 2006–07.

The SEQ region has added 43,829 new dwellings through infill and redevelopment over the three years to 2006–07. This is 38% more than the 31,836 dwellings required to achieve the overall target set out in the SEQ Regional Plan. Over this same period, infill dwellings accounted for 60% of total new dwellings, well in excess of the 40% target set out in the SEQ Regional Plan.

The proportion of detached (separate) houses in new dwelling approvals has decreased from 69% in 2001–02 to 67% in 2006–07, while attached housing has increased from 9.5% to 15.3%, and apartments have fallen from 21% to 17.6%.

There has been a reduction of 11% in the number of rural residential lots produced outside the urban footprint and rural living areas between 2004–05 and 2006–07. A continual decline is anticipated in these types of lots as existing approvals given before the SEQ Regional Plan came into effect are taken up or lapse.

Total employment in the primary, principal and specialists centres in the SEQ Region grew by 45,353 jobs (18.7%) rising from 242,544 to 287,897 jobs between 2001 and 2006. This suggests that the objective of encouraging major employment activities to locate in regional activity centres is being met. In particular, the principal activity centre of the Brisbane CBD is attracting a larger share of employment growth compared to its share of regional population growth.

While the implementation of the SEQ Regional Plan is still in its early stages, preliminary results suggest that the key development principles have been effective in achieving progress towards the DROs for urban development.
Comments from experts

**Ms Dyan Currie—President, Planning Institute of Australia, Queensland Division**

A good start … a need for renewed focus. The SEQ Regional Plan is an important step towards achieving sustainability with strong support from government, industry and the community. However, the status of some of the urban development indicators highlights the need for renewed focus on effective implementation to improve progress toward urban sustainability.

The first statutory SEQ Regional Plan provides sound strategic directions and good policy principles linking land use and development with investment in infrastructure. The statutory urban footprint has been successful in focusing planning resources and creating discipline in relation to growth management and infill development.

A sustained effort is required to bring about change in urban areas. Progress to meeting infill and housing diversity targets has slowed. It is too early to tell whether this is a downward trend or minor correction due to market factors. It is imperative to stay on the established track based on principles of sustainability.

Implementation must focus on delivering good planning outcomes through a responsive and efficient planning system. We need a legislative framework and a set of cultural values and attitudes to make the right things happen.

Implementation of the plan needs to be supported by ongoing political commitment and infrastructure investment aligned with the desired outcomes. In particular, a stronger focus on investment in active and public transport is required to shape settlement patterns and reverse the trend in private vehicle use.

The review of the SEQ Regional Plan provides an opportunity to test, substantiate and refine the policy direction and move forward by building on the strengths of the original. The SEQ Regional Plan has a focus on population growth, but more effort is required to achieve self containment in employment and create robust activity centres.

Similarly, housing diversity needs to meet a broad spectrum of community demands. Overall the plan was a good start, but if we are serious about sustainability, tackling the emerging challenges with bold decisions, refocusing, and getting on with facilitating good development are high priorities.

**Professor Brian Roberts—Emeritus Professor of Urban Management, Centre for Developing Cities, University of Canberra**

SEQ remains one of the most dynamic and fastest growing urban regions in Australia. The population of the region continues to grow at more than 1.5% per year, filling in the green space along the urban growth corridors stretching from Noosa to Coolangatta, west towards Toowoomba and south-west to Beaudesert.

Work undertaken for the *Australia State of the Environment 2006* report indicated the urban area of SEQ has been growing at more than 3% per year over the past two decades, while population density across the region has fallen by about 0.7% per year. For many, this will come as a surprise, as there has been a strong focus in the planning processes to encourage urban consolidation and to increase urban density. These changes are due largely to the increasing percentage of urban land being given over to environmental and non-residential use.

The rapid growth of the region has given rise to significant problems associated with transport, water, housing affordability, habitat loss and urban sprawl. Containing urban sprawl is a formidable challenge to the future sustainability of development in SEQ, as the urban form and housing mix indicators in this report show a rise in the preference for detached housing.

Successive state governments have attempted through the SEQ 2001 Regional Framework for Growth Management (RFGM) and the SEQ Regional Plan to set targets to increase urban population and development density across the region. The indicators in this report suggest these targets are unlikely to be met. Falling urban density and the spreading of the urban envelope will have significant consequences for the future state of the environment, and the economic competitiveness and costs of managing the region.

The various indicators presented in this report indicate that the current trends and pattern of urban and regional development are not sustainable, especially if the predictions of climate change are realised. A fundamental change is needed in the way we develop and manage the use of land in the region in future. Whether we like it or not, we have to change consumption habits and the approach to the development of new and existing urban areas.

We need to learn how to adapt to residing in more densely populated living and working environments. The SEQ State of the Region Report indicates that while we are improving on some of the targets towards the achievement of sustainable development, significant and possibly unpopular changes in urban policy and design will be needed, especially in the way we deal with urban consolidation.
Economic development

In recent years, SEQ has experienced robust economic and employment growth. Total employment in the region grew from 957,000 in 2001 to 1,141,000 in 2006 at a rate of 3.6% per year—faster than growth in the total population (2.2% per year). This resulted in the unemployment rate in SEQ falling from 9.9% in 1996 to 4.7% in 2006, and the region’s labour force participation increasing from 60.7% in 1996 to 61.7% in 2006.

This employment growth has had a positive impact on the diversity and resilience of the SEQ economy, which is important for the long-term sustainability of the region. Since 2001, the strongest employment growth was in high-income, professional occupations, growing from 176,000 in 2001 to 221,000 in 2006. Similarly, employment growth in knowledge-intensive industries grew from 349,200 in 2001 to 419,900 in 2006, at a compound growth rate (3.8% per year) faster than the rest of Queensland (2.1% per year) and the rest of Australia (1.0% per year). This has been mirrored by the increase in innovation and research in SEQ with strong growth to 2004 in US patent applications, licence income and spin-off companies developed by universities in the region.

The diversification of the economy towards high-income, knowledge-intensive employment has benefited SEQ and its residents by increasing prosperity and the capacity of households to absorb increased costs. Median household weekly incomes in SEQ grew across the region from 1996 to 2006 by between 59 and 86%. The strongest growth in SEQ was in the Sunshine Coast Statistical Division (85.7% to $895 in 2006), Gold Coast Statistical Division (82.3% to $1017 in 2006) and Brisbane Statistical Division (68% to $1111 in 2006). Overall growth in median household incomes across the region exceeded the growth in costs of living, which for Brisbane Statistical Division increased by 29% over the same period.

The SEQ economy has also benefited from an increase in international competitiveness. The real value of exports from SEQ ports grew at an annual rate of 3.4% per year, faster than the growth of exports from ports in the rest of Queensland (1.3% per year) and the rest of Australia (1.6% per year). Similarly, the region’s service exports have experienced strong growth with total tourist visitor nights growing from 55.4 million in 2000 to 64.8 million in 2007. SEQ’s share of Australia’s international students studying at universities grew from 11.5% in 2000 to 13.1% in 2006.
Comments from experts

**Professor Tim Robinson—Head of the School of Economics and Finance, Queensland University of Technology**

It is not necessary to look any further than the economy of SEQ to determine the characteristics of economic sustainability. Growing knowledge-based industries, increasing employment of professionals, and a strong export performance combine in SEQ to create a modern, forward-looking economy.

Not only are knowledge-based economies with strong export performance able to sustain growth and deliver growing employment opportunities, but because they are not generally natural resource intensive, they also have strong potential for environmental sustainability.

While diversity of employment opportunities is seen as a goal for SEQ, this is not necessarily consistent with the economist’s idea that maximising wellbeing results from pursuit of comparative advantage through specialisation.

There does not appear to be a good case for diversity within SEQ when, taken as a whole, the Queensland economy offers relatively diverse employment opportunities.

Many of these diverse employment opportunities are tied up with the state’s resource boom, which has contributed significantly to the strong Australian dollar. A potential risk to the sustainability of the SEQ economy is the adverse effect this strong dollar has on the region’s ability to continue to post strong export performances—especially in the areas of tourism and education.

The success of SEQ in rapidly building a strong, forward-looking economy has not occurred without growing pains. Increasing real incomes and consequent increases in population have contributed to large increases in levels of aggregate household consumption in the region.

This has stretched the capacity of infrastructure to provide acceptable levels of service and reduced the availability of environmental assets per capita. Significant resources must be devoted to development of economic policies that ensure the region does not become a victim of its own success.

**Dr Peter Brain—Director, National Institute of Economic and Industry Research**

SEQ is now a metropolitan region of world scale. Over the past decade the realisation has grown that metropolitan regions are key drivers of state and national economic growth. Such regions have:

- higher productivity, i.e. GDP per person employed compared to the state or national average
- higher productivity growth rates compared to the national or state average.

As a result, it is becoming increasingly common to view economic competition between nations as simply competition between specific cities.

The following factors outline some of the advantages of scale and scope that give metropolitan regions the advantages in productivity, productivity growth and growth opportunities.

- As the location of regional enterprise head offices and supply chains offering a diversified and specialised range of employment opportunities, metropolitan regions allow the skills of individual workers to achieve higher levels of efficiencies.
- Because of the range of specialised employment opportunities on offer and their potentially high productivity allowing high remuneration, metropolitan regions attract the young and highly skilled as migrants and tend to retain their best and brightest. This creates a further advantage in productivity.
- Due to their size, metropolitan regions allow the installation of specialised infrastructure or infrastructure at a scale that imposes maximum productivity spillovers to the benefit of the general economy.
- The clustering of industries and supply chains in nearby locations allows transport, administrative and logistic efficiencies that contribute to the productivity advantages.
- Industry and skill clustering in metropolitan regions maximises the impact of tacit (i.e. inferred) knowledge in successful innovation.
- By being able to provide knowledge-generating institutions, such as universities and related research organisations, metropolitan regions also facilitate successful innovation.

However, the statistical record also shows great variability in the ability of metropolitan regions to realise the benefits of scale. Those regions that do best are those with good connectivity, liveability, efficient land use and good knowledge creation.

Realising these benefits in turn requires world best-practice expenditures on transport, community and research infrastructure along with high-quality local political leadership. The current and projected activities of the SEQ Infrastructure Plan and Program are well designed to achieve some of these objectives.
Infrastructure

Coordinated and timely infrastructure provision is essential to support population growth in SEQ. The SEQ Infrastructure Plan and Program (SEQIPP) outlines the priorities and timing for infrastructure development in the region to support the objectives of the SEQ Regional Plan. The SEQIPP projects include delivering transport, water, energy, information technology and social infrastructure priorities. Progress in delivering SEQIPP includes 293 major projects that are underway and 162 completed projects. The total expenditure between 2005 and 2007 was $8.5 billion. SEQIPP is reviewed annually to ensure that infrastructure priorities to support the SEQ Regional Plan are identified and delivered by the government in a timely and cost-effective way.

The Queensland Government has released guidelines for the provision of social and community infrastructure. These will assist agencies and the community to better plan and coordinate the provision of social infrastructure in the region. Within government, agencies are involved in structure planning processes to ensure the efficient and timely delivery of social infrastructure in line with urban development.

In the energy sector, demand for energy is growing faster than the population due to greater demand for energy-intensive products such as air conditioners. Responses to this increased demand include programs such as the EnergyWise Program to improve energy efficiency. However, more needs to be done, particularly in the development of more energy-efficient urban and building designs.

Most of the power generated in Queensland is produced by coal-fired power plants with consequent high greenhouse gas emissions. However, the Queensland Gas Scheme is increasing the proportion of gas-fired power generation, which emits less greenhouse gas than coal. Also, the number of customers purchasing renewable energy in Queensland increased by 200% between 2004 and 2007.

The amount of domestic waste generated has decreased from 333 kg per person per year in 2004–05 to 315 kg in 2005–06. Over 1.5 million tonnes of waste ended up landfill in 2005–06. Increasingly there are fewer opportunities for new landfill sites and growing concern about their environmental impacts in the region. This is likely to result in higher waste management costs and greater encouragement of recycling.
Comments from experts

Mr Paul Clauson—Executive Director, Infrastructure Association of Queensland

A prosperous Queensland is ironically enjoying its day in the sun because of an unprecedented export demand for raw materials, particularly coal. The hunger for this and other commodities has caused a demand-driven prosperity that will end—albeit in the distant future.

Our community needs to anticipate ways of maintaining our lifestyle and economy in a sustainable manner when our time in the sun ends. The move to new forms of power generation by way of gas and renewable fuels assists, as does the realisation that water too is no longer to be taken for granted. The state’s move forward in these areas has been inspired by a general alert calling for an urgent action plan to meet the immediate demands of population growth in a sustainable manner.

The dilemma is what to do to meet the future.

Our generators are coal-fired, baseload essentials and it is rewarding to see the government investing heavily in exhaust recycling and carbon-capture technology to ensure that we have future baseload capability. Given the still unpopular nuclear alternative, these new technologies must be supported and where possible, fast tracked.

Without baseload energy support, our industries will not be sustainable in the long term. The private sector is, in the infrastructure sphere, developing a benchmarking scheme to rate new infrastructure projects on environmental attributes initially and then as the scheme matures, extending it to sustainability and social outcomes. This should provide an opportunity for the private and public sectors to interface and develop the best public outcome achievable for new infrastructure projects.

It is a given that demand for energy, transport and water infrastructure and social infrastructure such as schools and hospitals will not abate soon.

Population drift to SEQ will ensure this. Congestion is a major factor confronting us and it is necessary for the government to address this issue early and with courage. Our road infrastructure is being upgraded, but it requires some tough decisions by government on the better use of existing infrastructure so that the need to build more road networks to accommodate peak-hour high usage is reduced in the long term.

Corridors for public transport need to be identified and preserved, as do sites for the supply of raw materials for construction works. Planning for demographic and environmental change in a sustainable way is no easy task; however, it must be done with a sense of immediacy if our future as a vibrant, socially and economically functional community is to be ensured.

Associate Professor Michael Regan—School of Sustainable Development Bond University

Infrastructure refers to the essential networks that facilitate economic and social activity within a region.

In recent years, research has pointed to the important role that economic and social infrastructure play in regional economies.

Infrastructure determines a region’s productive capacity, output and the rate of growth of output. It is also associated with leading indicators of regional economic and social development including capital and labour productivity, private investment and business costs, employment, incomes and living standards.

State spending on health and education contributes to human capital and quality of life. Infrastructure also makes an important contribution to inter-regional development and influences the locational decision of firms, industry specialisation and the spatial distribution of industries and employment.

The quantity and the quality of infrastructure play a central role in the economic performance and social development of regions. The quantitative dimension concerns decisions about the level of spending, life-cycle costs, management efficiency, the selection of priorities and achieving value-for-money outcomes.

The qualitative dimension takes into account demand management, issues of sustainability, coordination with local government and the adoption of new technologies to meet more stringent greenhouse emission targets particularly in the energy and waste-management sectors.

The SEQ Regional Plan identifies and addresses these key supply and management issues in the infrastructure sector. It presents a supply-side approach whereby investment leads rather than follows economic development using long-term indicators of demand and sustainability.

This is a sound strategy to meet the service needs of a robust regional economy experiencing strong population growth. The framework is also sufficiently flexible to deal with issues that will arise in the future including changes in demand, new methods of procurement, greater private participation and making greater use of innovation and new technologies.
Water management

Our water assets support a variety of natural habitats, human life and economic activity. However, freshwater is in limited supply throughout much of SEQ. Therefore, ensuring the availability of freshwater for both urban and rural use is challenging.

Lower than average rainfall events resulted in declines in water levels of the Wivenhoe, Somerset and North Pine dams to less than 40% capacity, triggering level 6 water restrictions. A number of projects have been introduced by the Queensland Government to manage residential water use, including the Home WaterWise Rebate schemes, Home WaterWise Service, Business Water Efficiency Program, various educational campaigns, One-to-One Water Savings Program and water restrictions.

With the combined capacity of the Wivenhoe, Somerset and North Pine dams reaching over 40%, water restrictions were eased on 31 July 2008 from level 6 (with Residential Target 140) to level 5 (Residential Target 170). The average residential water consumption per person per day remains on target at below 170 litres. Additionally, the average residential consumption for the October–December 2007 period was 31.6% lower than the July 2004–June 2005 period.

The Queensland Water Commission’s SEQ Water Strategy will further guide sustainable water use in the long term by setting a post-drought residential water usage target of 230 litres per person per day and requiring industry to move towards best practice water consumption.

Groundwater resources provide valuable fresh water for urban, domestic, stock watering, irrigation, industry and mining purposes. Prolonged drought conditions and the reduced availability of surface water have resulted in an increased rate of groundwater extraction, particularly for irrigation. As a consequence, groundwater levels have declined in many areas across the region.

A number of groundwater systems in SEQ have been declared as groundwater management areas under the Water Act 2000. When an area is declared, a licensing and groundwater management regime is established to regulate the take of groundwater and the construction of works to take groundwater. In some groundwater management areas, this is being achieved through the implementation of Water Resource Plans and other regulatory measures.

Water Resource Plans aim to maintain long-term access to water and ensure that water is preserved for environmental flows and dependent ecosystems. Plans have now been completed for all SEQ catchments. All plans, except those for the Mary and Moreton catchments, deal only with surface water resources. The SEQ Irrigation Futures Program is a partnership between rural industry and government that aims to improve on-farm management of surface water and groundwater use for irrigation.
Comments from experts

**Professor Paul Greenfield—Vice Chancellor, The University of Queensland**

People like coming to SEQ—they come to live, work and play. The climate, the economy and the environment, particularly the aquatic environment, have been and continue to be great attractors. In turn, this influx poses major infrastructure challenges, including the provision of adequate supplies of water, the discharge of waste-water and the health of the SEQ waterways.

Historically, we in SEQ have tended to assume that there will always be sufficient water available from surface run-off into dams from rain events, regardless of population and regardless of usage levels. Recent climatic patterns have challenged this assumption, and the likely increased variability in weather patterns as a result of global warming will only add to the challenges.

Addressing these challenges requires a rethink. We must understand the overall water cycle within SEQ as the exact patterns of water generation and availability, water transport, water use, water discharge and aquatic ecosystem health are unique for any region. We do not wish to run out of water, we do not wish to be flooded, we do not wish for the rivers, the estuaries, the bays and the beaches to deteriorate any further.

This component of the SEQ State of the Region Report addresses a number of the issues related to water supply. Key continuing strategies are:

- lower domestic and industrial demand for potable water, which has been achieved superbly during the recent low rainfall period
- more efficient use of water in irrigation using new approaches and new technology
- thinking beyond traditional supply sources to ground water, reuse and desalination.

SEQ is special. For it to remain special into the future requires us to be innovative in our approach to supplying, using and discharging water. In recent times, the community of SEQ has demonstrated its willingness to embrace such challenges. The increased understanding of our water supply and demand options shown in the water management component of the SEQ Regional Plan will be vital in moving forward.

**Ms Elizabeth Nosworthy—Chair of the Queensland Water Commission**

As SEQ continues to experience the worst drought on record and high population growth, many agencies across the region have been working towards ensuring the region’s long-term sustainability.

Demand management programs to reduce water consumption are essential tools for the Queensland Water Commission (QWC) to ensure long-term water security.

A key program initiated by the commission was the voluntary Target 140 campaign, introduced with Level 5 restrictions in May 2007.

The campaign asked residents to take their water savings inside the home and use 140 litres per person per day.

Since its introduction, residents have shown tremendous commitment and reduced their water usage from an average of 181 litres (before Level 5 restrictions) to an average of 130 litres. The QWC recently released the Draft South East Queensland Water Strategy for public comment.

It is the most comprehensive water supply security model for any large urban population in Australia. The strategy is founded on a long-term residential usage target of 230 litres per person per day to apply when the region emerges from its current drought.

The strategy takes a holistic approach to all the issues relating to our water supply including an assumed 10% negative impact on dam yields from climate change.

The strategy’s Water Supply Guarantee gives an undertaking to the community to supply sufficient water to support a comfortable, sustainable and prosperous lifestyle, while meeting the needs of urban, industrial and rural growth and the environment. It means that future infrastructure programs will always stay ahead of demand. We see a future where, post drought, we move to permanent low-level conservation measures and only move to medium-level restrictions, on average, once every 25 years in the event of severe drought.

The strategy assumes two proposed new surface-water supplies—Traveston Crossing Dam and Wyaralong Dam—and also new groundwater sources.

By 2056, 30% of the region’s water is expected to be provided by more climate-resilient sources such as desalination and purified recycled water schemes.

The 50-year blueprint tries to strike the right balance between these three connected influences, but only the community response will tell us whether we have got it right.
Integrated transport

The available evidence indicates that SEQ’s transport network is under increasing pressure. Firstly, people are choosing, through either personal preference or a lack of current viable options, to travel predominantly by private vehicle. Indeed, the number of cycle and walk trips have decreased in favour of the number of private vehicle trips, which is growing each year. Not only is the private vehicle the preferred mode of transport, it is also being driven further. Annual vehicle kilometres travelled (VKT) per capita by the private vehicle, is growing faster than the population. This trend has been matched by an increase in car availability. At the same time, the single-occupant vehicle predominates. Finally, road congestion is increasing on particular critical links during peak hours. Road upgrades bring improvements, but over several years travel speed tends to slow again because more vehicles are using the network every year.

While people in inner city areas are a little less dependent on the private vehicle, travel in outer areas is trending more strongly towards high private vehicle ownership, and low public and active transport mode share.

A range of factors is contributing to these trends. Data demonstrates that the average distance to work is increasing and this suggests that a key influencer of travel behaviour is the separation of land uses—work, home, education, retail and recreation—such that private vehicle travel is necessary when travelling from one to another. Other factors include: rapid population growth; poor accessibility for walking, cycling and public transport in the urban form; a lack of viable travel options; and, increased private vehicle affordability.

The transport network is also being placed under growing pressure by rapid increase in freight movements throughout the region due to population growth, economic prosperity and changing business practices.

Sustainability impacts may include: increased levels of air and noise pollution and greenhouse gas emissions; growing demand for public expenditure on transport infrastructure; an increasingly physically inactive population; costly passenger vehicle servicing, fuel and other expenses; and loss of economic activity due to the increasing amount of time spent waiting in congestion.

The SEQ Regional Plan is a long-term document with a 20-year planning horizon. Given that we are only a few years into its implementation it is important to maintain realistic expectations about the time and effort required to slow and reverse trends of concern while sustaining positive trends. Early indications that this is occurring can be seen in increases in public transport patronage. This is reinforced by a slight increase in public transport mode share.
Comments from experts

Professor Peter Newman—Professor of Sustainability, Curtin University

Strategic planning is always hard. We can look back in any Australian city and see traditions to build on where far-sighted politicians, public servants and community leaders forged a new direction out of the fog of daily life.

I know the SEQ Regional Plan is not the first strategic plan for the region, but it is nevertheless historic as it is much bigger in its reach and its significance than anything that has gone before. Strategic plans often never happen as forces in government and business often prefer not to have a strategic plan. The responses ‘The market will look after these matters’ and ‘Planners never get it right’ are largely right as we do need to see the power of the market and the hubris of planners. But every market and every planner needs a framework and a sense of community vision and moral direction for the future, particularly where land markets impact on regional transport and the environment.

The market-driven roller coaster in SEQ has generated problems of urban sprawl and car dependence, which threatened to leave the region wondering where the best bush has gone and why the roads are filled with cars.

The SEQ Regional Plan was an historic intervention that showed that development must be focused into particular centres and corridors, and that an upgraded public transport system is essential to creating a real alternative to the car.

So, what is next? As soon as the ink is dry on any strategic plan it is out of date.

This is particularly so now that we have a new perspective on the critical issues of climate change and peak oil leading to the requirement that we must reduce consumption of all fossil fuels by 50% by 2050.

This means we need to be even more vigilant in stopping urban sprawl and building better public transport to halve traffic by 2050. This is the challenge to build on the SEQ Regional Plan.

Professor Brendan Gleeson—Director of the Urban Research Program, Griffith University School of Environment

Our progress towards sustainability in integrated transport is mixed. Promisingly, public transport patronage rose rapidly in the last three years, particularly in outer suburban areas. The actions of Translink, in delivering region-wide service improvements and integrated ticketing, have been outstanding.

Forthcoming enhancements to Translink’s role will be important in helping meet our travel needs in the face of growing congestion.

With growing passenger numbers, some of our public transport infrastructure is running at or near capacity. Some projects have begun already under the SEQ Regional Plan (i.e. the new busways), but we will need constant ingenuity and investment to maintain or improve services on our rail and bus systems. Delivering segregated line-haul public transport to the Gold and Sunshine coasts remains a pressing priority.

Disappointingly, there have been significant decreases in walking or cycling since the early 1990s. Without meaningful investment in pedestrian and bicycle networks, we cannot expect any real improvement.

Our biggest problem though remains our bondage to the car. We have not yet stemmed the growth in vehicle kilometres travelled per person—a real threat to our lifestyle and economy. Some particularly unsustainable travel behaviours have emerged, such as the number of car commuters travelling from the Gold and Sunshine coasts to Brisbane each day.

Congestion grows in the face of our road capacity expansions. And delays, measured by falling levels of service, are commonplace across the arterial network. However, road travel speeds and level of service are not always the best measure of transport efficiency on a corridor. The inbound lane of the South East Busway carries more persons than all three traffic lanes of the South East Freeway, effectively maintaining the corridor’s travel times for all travellers, even as travel speeds on the freeway decrease. As such, we may well be limiting our regional productivity by not prioritising freight, business, public transport and high-occupancy vehicles on more of our transport corridors.

As has been recognised in this report, better indicators are needed to measure the overall efficiency of our corridors, especially for public transport and freight.
Success stories

Sustainability

**ecoBiz Queensland and the Mirvac Orion Springfield project—Environmental Protection Agency**

ecoBiz is the Environmental Protection Agency’s (EPA) signature partnership program with Queensland business and industry. ecoBiz assists businesses achieve efficiencies in waste, water and energy. To date the ecoBiz program has helped more than 400 Queensland businesses make energy and water savings, reduce greenhouse gas emissions and chemical use and minimise waste to landfill and sewer.

The ecoBiz program uses a six-step process to help Queensland business become more efficient through smarter resource management, allowing them to achieve increased profitability and sustainability. A key feature of the program is the rebate scheme. The scheme assists with the capital cost of projects that demonstrate a high level of innovation, increase recycling, and conserve water and energy.

The ecoBiz program has provided over $2.3 million in rebates for 29 projects, which are resulting in annual savings of 634 megalitres of water, 96 terajoules of energy, 26 000 tonnes of waste and more than 24 000 tonnes of greenhouse gas emissions.

Mirvac’s Orion Springfield project is an example of the ecoBiz program at work in SEQ. The company received a $150 000 rebate through the ecoBiz program to develop an eco-efficient town centre in Springfield near Ipswich.

The Orion Springfield Town Centre opened in March 2007 and delivers significant environmental benefits (in categories such as energy and water conservation, indoor environmental quality, transport, management, ecology, materials and emissions) when compared with other similarly sized shopping centres. These benefits include:

- a 42% saving in power use (enough to power 500 Queensland homes per year)
- a 68% saving in potable (drinking water) use (enough to fill 40 Olympic-size swimming pools per year)
- a saving of 5000 tonnes of greenhouse gas emissions (equivalent to taking 1162 cars off the road per year)
- a saving of 5000 tonnes of landfill waste.

Active School Travel program

The Active School Travel (AST) program is a Brisbane City Council travel behaviour-change program offered to Brisbane primary schools. The AST program provides students with a positive and safe active travel experience. By encouraging the active travel habit across all activities, and not just the journey to and from school, the AST program aims to influence the continuation of this sustainable travel behaviour throughout life. The AST program also has a positive impact on parental attitudes towards the reduction of private motor vehicle use.

The program began in 2004 when the council introduced it to eight schools; it has been further developed and improved since. The AST program was provided to 10 schools in 2005 and 2006, and another 13 schools in 2007 and 2008.

The AST program is aimed at reducing traffic around schools in the morning and afternoon peak periods. To achieve this it promotes walking, cycling, public transport and carpooling as clean and green, active and healthy modes of transport to and from school.

The School Travel Plan is supported by a number of initiatives that reinforce the aim of the project, including bike skills training, Walking Wheeling Wednesday, Walking School Buses, park and stride, public transport orientation and car pooling. Council’s key role is to facilitate the integration of the program into all levels of the school. On Walking Wheeling Wednesdays, 91% of Seven Hills State School students are regularly travelling to school actively.

In 2007, the AST program resulted in an 11% decrease in sole passenger car trips to and from school. The highest modal shift towards sustainable transport was walking, with a 7.5% increase across all schools over the year.

The AST program delivers a wide range of community benefits including:

- reduced congestion around the school precinct
- increased participation in active transport
- increased physical activity levels for both students and parents
- healthy interschool competition
- a strong sense of community within the school and local area
- positive local and state government engagement.
Natural environment

Conservation Action Priority Mapping and Revegetation Guide—Logan City Council

Logan City Council’s Conservation Action Priority (CAP) Mapping and Revegetation Guide are important measures to identify and protect high conservation values within their local government area.

The CAP maps identify and prioritise properties for conservation actions (whether the actions involve acquisition, conservation partnerships or planning scheme mechanisms) in Logan City. The Revegetation Guide provides site-specific vegetation information to inform comprehensive site rehabilitation plans.

The research and development of these maps used robust techniques and was peer reviewed by many stakeholders including the EPA, South East Queensland Catchments Ltd (SEQC) and local conservation groups.

An SEQ regional version of the Revegetation Guide is being developed based on the Logan City document. Many SEQ councils have expressed their support and interest in the regional initiative.

CAP mapping aims to:

- produce a map showing three CAP rankings (very high, high and medium) of properties in Logan
- identify and prioritise properties for conservation actions in Logan
- maximise resources for conservation by focusing conservation initiatives on priority areas.

CAP mapping has set the strategic direction for conservation actions in Logan City. It has provided a clear direction to councillors and staff in relation to conservation investment.

The revegetation guide:

- provides a property-specific revegetation guide that gives complete on-ground regional ecosystem determinations with full species complements
- allows the easy development of comprehensive rehabilitation plans through the provision of ecological, horticultural and supplier information.

The Revegetation Guide is a site-specific tool that provides more detailed information to guide rehabilitation projects as opposed to the generic species lists available, leading to an improvement in rehabilitation outcomes. The guide is being used by council, community groups and developers to prepare rehabilitation plans for properties—saving considerable time and effort in selecting the appropriate plant species.

Nature Refuge Program—Environmental Protection Agency

Queensland contains some of the most species-rich areas in the world. This richness has developed largely as a result of the state’s amazingly diverse geology, landscapes and climate ranging from sandy deserts to tropical rainforests.

Formal reserves such as national parks and state forests have been viewed as the major means to protect Queensland’s unique biodiversity. However, they alone cannot ensure the values taken for granted today will be available for future generations.

As part of a growing international trend, private landholders are complementing the formal reserve system through programs establishing nature refuges. The growing relationship between landholders and the Queensland Government is ensuring significant biodiversity and cultural heritage values will continue to be managed responsibly and sustainably.

A system of voluntary conservation agreements between landholders and the Queensland Government supports the preservation of Queensland’s biodiversity, leading to the establishment of nature refuges. Nature refuges are a category of protected area under the Nature Conservation Act 1992.

Each of these nature refuge agreements is negotiated directly with the landholder and tailored to suit their management needs. Agreements can cover part or all of a property. The objective of this Nature Refuge Program is to conserve the significant cultural and natural resources of Queensland and to take landholder interests into account (which may include such continuing pursuits as cropping, grazing, horticulture and ecotourism), allowing for the controlled use of the state’s cultural and natural resources in an ecologically sustainable manner.

Landholders are supported by a network of nature refuge officers providing specialist advice on how to best manage the values that their nature refuges are preserving.

The first nature refuge, Berlin Scrub, was established in SEQ on 15 April 1994. Today there are more than 250 nature refuges throughout Queensland including 59 in SEQ. Those in SEQ account for 17 018 ha of the region.

These refuges are protecting important regional ecosystems including those with low representation in the protected area estate and some are providing immediate catchment protection. Additionally, they are providing valuable wildlife corridors and protecting habitat for a variety of rare and threatened plant and animal life.
Regional landscapes

The Brisbane Valley Rail Trail—Department of Infrastructure and Planning

The Brisbane Valley Rail Trail is recycling the disused Brisbane Valley rail line between Ipswich and Blackbutt as a regional recreation trail.

When completed in 2012, it will provide an outstanding 148-km recreation trail for walking, cycling and horse riding, serving both the Brisbane Valley and SEQ region.

The Rail Trail will deliver recreation, social, economic and health benefits to local communities and users. It offers high rewards to families, bicycle tourists, mountain bike riders, heritage enthusiasts, horse riders and walkers. By bringing tourists to the Brisbane Valley, it will provide economic benefits to the communities ‘along the line’.

The Rail Trail will encourage higher levels of physical activity and will help to address community health issues such as obesity and diabetes. Community engagement is critical to the success of the Rail Trail and planning has included a number of community information sessions and activities, and the establishment of ongoing partnerships with local community groups interested in preserving and presenting the heritage values of the old rail line. Twenty-six bridges and a railway tunnel remain on the line and will be refurbished to provide one of the main heritage attractions of the Rail Trail.

Community input has also been incorporated into an overall Rail Trail Plan to guide the development and management of the Rail Trail over the next four years to 2012.

The initiation of this regional rail project recognises the increasing demand for high-quality outdoor recreation facilities and will help to ensure the SEQ region remains a liveable and desirable place in which to live, work and play.

Incorporating Indigenous landscape values into regional planning processes—Griffith University

Indigenous landscape values in SEQ are the subject of a current research program led by Associate Professor Darryl Low Choy at Griffith University. The research aims to determine whether Indigenous landscape values can be identified and represented in ways that respect Indigenous culture and that can be used in conventional planning processes. For example, planning for the location of infrastructure might include gathering information on values such as biodiversity and constraints such as flooding.

However, there is currently no information available to planners in SEQ on Indigenous landscape values. Finding ways to identify and represent these values that are culturally appropriate and acceptable to Indigenous people is one of the expected outcomes of this research.

The research project is being conducted in two parts. The first part will take place during 2008 and will include a review of published information on Indigenous landscape heritage and two workshops with local Indigenous people. The second part of the project will identify specific Indigenous landscape values in SEQ and develop processes for including these in regional planning.

Partners to the research project include the South East Queensland Traditional Owners Land and Sea Management Alliance (SEQTOLSMA), Department of Infrastructure and Planning and SEQ Catchments. The establishment of SEQTOLSMA to represent Indigenous Traditional Owners in SEQ has been an important development that will support this research initiative.

This project represents an opportunity to engage Indigenous people and to incorporate their landscape values in the evolving SEQ regional landscape planning processes while also providing leadership and guidance to other regional planning initiatives outside SEQ.
Natural resources

Property management planning—SEQ Catchments Ltd

Property Management Planning (PMP) is a National Landcare Program-funded initiative that uses a proven regional devolved grant process to provide incentives for landholders undertaking priority on-ground works. PMP enables decision making and continuous improvement at the property level. A whole-property plan also considers natural resource management, production, economic and social systems involved in an enterprise.

PMP facilitates planning and action, from a paddock to property to catchment level, to achieve regional natural resource management targets.

SEQ Catchments delivers PMP services to landholders that take into account landcare and lifestyle outcomes as well as production needs. For primary producers a coordinated delivery of services is required to provide integrated products and environmental, social and economic outcomes.

Over the last couple of years, the PMP program in SEQ has focused on improving the condition of land and water resources and the sustainability of agricultural enterprises through the implementation of priority on-ground works.

Since 2006, 43 landholders have been involved with the following on-ground outputs:

- more than 700 ha of improved grazing management through fencing, erosion control and establishment of alternative water points
- 14 off-stream or alternative watering points established
- 240 ha protected from soil erosion and salinity through combination of soil conservation works, fencing and pasture establishment activities
- 45 ha of soil health improvement activities and demonstrations
- 20 ha of native forest management
- 85 ha of priority weed control
- 51 ha of remnant vegetation and 11 hectares of riparian vegetation protected and enhanced
- 5 ha of revegetation
- 8 km of fire management activities in conjunction with local fire management plans.

Further projects are being developed and the PMP program is an ongoing service provided to landholders by SEQ Catchments.

Richmond Birdwing Butterfly—Recovery Project SEQ Catchments Ltd

The spectacular Richmond birdwing butterfly was once common from Maryborough in Queensland to the Clarence River in New South Wales. Today it is threatened with extinction due to habitat destruction and the loss of its caterpillar's food plant, the Richmond birdwing vine.

The introduced Dutchman’s pipe vine is contributing to the birdwing’s demise as it lures the butterfly to lay eggs on its leaves. It is toxic to this species and the emerging larvae are quickly poisoned.

The Richmond birdwing butterfly is extinct in two-thirds of its original range, with no natural breeding sites remaining between Maryborough and Gympie.

The Richmond Birdwing Recovery Network along with the EPA, 20 catchment and community groups and SEQ Catchments is helping the butterfly fight back. Established in 2005, the network’s 320 members are working with local governments, community groups and individual landholders to plant corridors of Richmond birdwing vine and remove Dutchman’s pipe vine.

Participating nurseries have grown more than 2000 healthy vines for planting on ‘stations’ on public land and on ‘links’ on privately owned land.

The first priority was to plant in Brisbane’s western suburbs. Assistance with purchasing and planting vines was then extended to community groups and network members on the Sunshine Coast. A major station was established by the EPA at West Burleigh on the Gold Coast.

An ongoing media campaign has also encouraged urban gardeners to plant Richmond birdwing vine and destroy Dutchman’s pipe vine in their gardens. The Richmond Birdwing Recovery Network has so far established 22 stations and 39 links in Brisbane’s western suburbs and more than three stations and 18 links on the Sunshine and Gold coasts. Three other sites have been established along the eastern escarpment in protected gully areas in parks in Toowoomba.
Rural futures

*Rural precinct planning—Department of Infrastructure and Planning*

Rural precinct planning provides an opportunity for local governments to undertake detailed planning to contribute to the sustainable development of their rural areas.

Rural precinct plans identify a preferred mix of land uses within particular areas to build on the natural features or resource strengths of an area and avoid problems that might arise from conflicting land uses. For example, a rural precinct plan can identify agricultural production as a locally or regionally important land use and a range of other land uses that complement or benefit from agriculture. These may include bed-and-breakfast tourism or value-adding agribusinesses, such as food processing or packing enterprises. By prioritising and coordinating land uses, regional councils can protect and promote rural industries over the long term and provide certainty for investors and operators.

Rural precincts are initiated by regional and city councils. They help councils identify and address unintended obstacles to ecologically sustainable development within the regional landscape and rural production area or investigation areas.

The planning process required to establish a rural precinct has been specified by the Rural Precinct Guidelines prepared by the Department of Infrastructure and Planning in consultation with state departments, regional councils and community groups.

The process ensures detailed planning studies are prepared and consulted on with a wide range of stakeholders to identify acceptable opportunities for developing the economic potential of the rural precinct area. Pilot rural precinct planning projects are underway, supported by the Queensland and local governments. The pilot projects include rural tourism, agriculture and agribusiness precincts.


*Innovation supports rural business on the Sunshine Coast—Growcom*

Natures Fruit Company is an innovative grower-owned cooperative located on the Sunshine Coast that is diversifying fruit and nut production and helping growers to manage drought, urban encroachment and competition from imported products.

The company’s Chairperson, Rosslyn Smerdon, is passionate about the benefits of cooperative growing and was awarded the 2008 Rural Industries Research and Development Corporation’s Rural Women’s Award for her work with avocado, custard apple and macadamia nut production.

Ms Smerdon plans to use the $10 000 prize to finance a trip to South Africa to visit a large-scale avocado-growing and value-adding processing plant to improve opportunities for the production and processing of the company’s range of produce.

The company’s membership extends from the Atherton Tableland to Victoria and includes growers from south-western Western Australia. Over 600 000 trays of avocados are being packaged, marketed and sold through the company, which is actively seeking to improve opportunities for growers to expand their enterprises.

More information can be found at <www.naturesfruit.com.au>.
Stronger communities

Brisbane Housing Company—Department of Housing

Since 2002, the Brisbane Housing Company has been striving to provide affordable rental apartments and boarding rooms in Brisbane. Along the way it has received awards for its new housing projects.

This company was set up in response to the loss of affordable rental housing in inner suburbs. It seeks to make the most efficient use of available government funding to provide more housing.

A joint initiative of the Queensland Department of Housing and Brisbane City Council, the company is an independent, non-profit organisation. With significant capital funding from the department ($109 million) and council ($14 million) to support the development of housing, it uses income from rents to manage and maintain its properties. Any surplus is used to fund development of more housing for people on low incomes. Tax deductible donations and voluntary developer contributions can also be made to the company, which is a registered charity.

The Brisbane Housing Company's operations are supported by a number of factors that provide for more cost-effective provision of affordable rental housing:

- Residents of the company's properties, where eligible, receive rent assistance from the Australian Government.
- The company is exempt from paying income and capital gains tax, has a GST concession by providing accommodation at below 75% of market rent, and is eligible for other tax concessions and exemptions.
- The company can enter joint ventures with the private sector.

Properties are rented out at up to 74.9% of market rents. Rents for boarding rooms are set in keeping with market rents for that type of accommodation elsewhere in Brisbane.

The company currently has 596 occupied townhouses, apartments and rooms, with another 111 under construction and more than 300 being planned. The properties are mainly located in the inner and middle suburbs, but the company can operate anywhere in the Brisbane City Council area. Two of the projects—Warry Residences and Ashton Residences—have subsequently received architectural and urban development award recognition.

North Lakes and Surrounded Health Partnership Precinct—Queensland Health

The North Lakes and Surrounds Health Partnership Precinct is an innovative project that will address issues including: an ageing population, socioeconomic disadvantage, a growing prevalence of chronic disease, changes in traditional patterns of service delivery, increasing demands on resources and workforce shortages.

The project aligns with the Queensland Strategy for Chronic Disease and relies on building strong partnerships within the local and wider community for success.

The precinct will provide residents with access to a network of primary and ambulatory (outpatient) healthcare providers. Staff in these networks (including Queensland Health staff, general practitioners and non-government providers) will work together to address individual client health needs; care for people closer to their homes, rather than in hospital; and bridge the gap between community and hospital services and government and non-government health-care providers.

Several new models have been developed to enhance service delivery of chronic disease management: mental wellness and ambulatory care, healthy children and young people, and healthy ageing within the precinct.

For example, the precinct will now provide easier access to pregnancy check-ups, childbirth and parenting groups; physical activity programs for new mothers and mothers-to-be; feeding and nutrition support; baby weights and check ups; immunisation; parenting support; falls prevention clinics; therapy and rehabilitation services.

Key improvements across the board will include:

- reduced waiting lists and fewer complications as a result of integrated community-based outpatient assessments
- fewer hospital re-admissions as a result of better disease management care
- multi-skilled teams to manage and follow-up care coordination, medical and home medication reviews, GP liaison, allied health and psychological interventions
- links to physical activity and nutrition programs for members of the community
- the development of family centres, which will act as one-stop shops for pregnancy and early childhood services, resulting in an emphasis on early intervention and support.

The overall cost of the precinct including land (excluding the proposed $7 million for renal services) is $48.159 million.
Engaging Aboriginal and Torres Strait Islander peoples

Teerk Roo Ra National Park—SEQ Traditional Owners Land and Sea Management Alliance

Teerk Roo Ra (the Aboriginal name for Peel Island) lies in Moreton Bay east of Cleveland. It was of economic and cultural significance to the Bay Islands’ Traditional Owners—the Quandamooka people.

Following 15 years of discussions, consultations and negotiations between the EPA and Quandamooka Traditional Owners, the Teerk Roo Ra National Park was gazetted last December, exemplifying successful Traditional Owner engagement.

The island is surrounded by mangroves except for a sandy beach on the southern side in Horseshoe Bay. It is adjacent to extensive seagrass beds and shallow sandbanks that provide habitat for turtles, dugong, seafloor invertebrates and shorebirds. The island has been used for a variety of purposes including a quarantine station, a home for ‘inebriates’ and as a lazaret, housing leprosy patients. The EPA has been responsible for the day-to-day management of the island since mid 1993.

Both the EPA and Quandamooka people have wanted to see the island protected from development. However, pressures for development and commercial exploitation meant that despite their common goals, maintaining good communication was sometimes difficult.

Strategies used to advance the process were founded on the parties’ commitment and goodwill. It was critical to maintain the relationship. Being open and transparent, keeping people informed, caring for personal and regional relationships, listening and working towards the key goals and aspirations of the Quandamooka people were the fundamental values of the process.

Two other elements were important: the Quandamooka people were employed by the EPA and involved in the process, and they worked with the EPA to devise management plans for the Island.

Gazettal of the national park now protects the island from exploitation. The parties are developing a Memorandum of Agreement that will involve the Quandamooka people in ongoing joint management of the national park.

Establishment of the SEQ Traditional Owners Land and Sea Management Alliance

The establishment of the South East Queensland Traditional Owners Land and Sea Management Alliance (SEQTOLSMA) is a significant achievement for Aboriginal Traditional Owners and beneficial for government. SEQTOLSMA provides a point of contact and consultation for the entire region.

Following mass resignation of the Traditional Owner Advisory Board in 2000, there was a vacuum in representative capacity. Furthermore, overlapping native title claims raised uncertainties about which Traditional Owners the government should consult. An intensive period of consultation and negotiation between Traditional Owners began in 2002 and culminated in 2005 with the adoption of an engagement framework and the incorporation of SEQTOLSMA. The process was supported throughout by SEQ Catchments and its predecessor bodies.

The Mabo Decision (1992) and the Native Title Act 1993 clarified the need for Traditional Owners to be consulted about vacant crown lands. SEQTOLSMA was designed to answer the need for certainty in engaging the correct representatives. It aims to include all SEQ Traditional Owner groups with representatives, endorsed by each group’s traditional decision-making processes, making up the board of directors.

Almost all functional Traditional Owner groups have become members of SEQTOLSMA and are represented on the board. This includes nearly all Registered Native Title Claimants and Registered Cultural Heritage bodies. Cultural group members include Gubbi Gubbi, Kabi Kabi, Jinibara, Jagara (Jagara, Yuggera and Ugarapul), Beaudesert Traditional Owners (Mulinarlie), Ngarang-Wal and Quandamooka (Noonucle, Ngugi and Gorenpu).
Urban development

Bowen Hills transit oriented development—Urban Land Development Authority

The government has identified the inner city Brisbane suburb of Bowen Hills as a potential showcase for a new ‘Smart City’ approach. The Bowen Hills site was chosen because of its high-frequency transit opportunities (being one of only four stations through which all CityTrain lines pass). The site has a number of significant government landholdings avoiding issues of fragmented ownership and allowing greater control over land use mix, built form and public space. It is in close proximity to the CBD and public transport access, and will attract strong market interest.

The transformation of Bowen Hills into a dynamic ‘people place’ will be achieved through applying best practice urban policy from transit oriented development (TOD) through to subtropical design and sustainability principles.

In July 2007, the Queensland Housing Affordability Strategy nominated Bowen Hills as one of five initial sites that would fall within the mandate of the new Urban Land Development Authority (ULDA). The commencement of the Urban Land Development Authority Act 2007 in September 2007 enabled the establishment of the ULDA in November 2007 and the declaration of Bowen Hills as an urban development area in March 2008. The ULDA is considered an effective delivery mechanism for the TOD project.

In redeveloping Bowen Hills, attention will be given to increasing public transport patronage and creating high-quality pedestrian and cyclist-friendly environments that prioritise people over cars. This, combined with provision of jobs, homes, services, leisure and recreation and a high-quality public space within walking distance of public transport, will revitalise Bowen Hills as a highly liveable, sustainable urban community and successful inner urban place.

The connection of Bowen Hills by rail and bus services to the CBD and other precincts, such as the Kelvin Grove Creative Industries precinct, the Fortitude Valley entertainment precinct and hospital-based knowledge precincts at the Royal Brisbane and Princess Alexandra hospitals, will enable companies, entrepreneurs and knowledge workers who locate at Bowen Hills to establish networks and achieve competitive results.

Subtropical housing design—Centre for Subtropical Design, Queensland University of Technology

Subtropical design aims to use passive environmental design to achieve maximum comfort for occupants. The subtropical design process considers siting, orientation, composition, functional arrangements, materials, detailing and complementary landscape treatments.

Although the region is rich in heritage ‘timber and tin’ housing from earlier eras, the overwhelming majority of recent developments in the region have struggled to find a distinguishing style. The traditional timber and tin Queenslander used local materials to respond to climatic conditions—wide, shady verandahs, elevation on tall stumps and fast-cooling materials were ideal for the predominantly hot and humid summer conditions.

The challenge for designers and architects is not to reproduce timber and tin homes, but to use subtropical design principles to create compact new neighbourhoods and construct innovative buildings that respond to the local climate and environment.

The Centre for Subtropical Design (CSD) is located at QUT, Gardens Point, Brisbane, in the Faculty of Built Environment and Engineering. CSD is supporting high-quality planning, design and development that complements the collective view of the subtropical lifestyle through a case-based, pragmatic research program that embraces innovation, creativity, and sustainability in a subtropical environment.

The research approach, process and applications are based on real design, organisational and industry expectations and outcomes. Lessons learned from research add to broadened knowledge and understanding of subtropical design principles and practices.

Recent and current research projects undertaken by CSD include:

- Living Walls—lowering of heat transference to a building’s envelope
- Same Latitude New Attitude—a climate change initiative for air-conditioned buildings
- Planning for Air Movement—investigating the role of site planning to maximise the potential for new homes to access breezes for natural ventilation
- New Queenslander—a contemporary, environmentally sustainable timber house
- best practice principles for subtropical detached house designs
- best practice principles for subtropical neighbourhood centres, new subdivisions and existing subdivisions
- best practice principles for subtropical design at the regional scale.
Economic development

**Australia TradeCoast**

The Australia TradeCoast (ATC) is the fastest growing trade and industry precinct in Australia and is a strong contributor to the Queensland economy and employment. It is strategically located at Queensland’s primary trade and industry gateways, Brisbane Airport and the Port of Brisbane, 15 km north-east of Brisbane’s city centre. It encompasses approximately 8000 ha of land around the Brisbane river mouth.

Formed in 1999, ATC’s shareholding partners include the Brisbane Airport Corporation, Port of Brisbane Corporation, Queensland Government and Invest Brisbane—Brisbane City Council.

Brisbane Airport is the nation’s fastest growing capital city airport with passenger numbers in 2006–07 of 17.5 million. These are expected to grow to 35 million within 20 years. The Port of Brisbane is the third largest capital city port in terms of containers, and the fastest growing with 15% growth. The value of trade through the Port of Brisbane was $34.4 billion in 2006–07, almost double that in 2001.

There are over 7500 businesses, including multinationals and regional headquarters in ATC and the number is growing each year. Just over 43 000 individuals are currently employed within the region and this figure is expected to grow to 106 000 by 2026.

Approximately 1300 ha of land are available for a range of industry and business purposes. The economic contribution by ATC in 2005–06 was $4.1 billion and the private sector spent $7.5 billion in capital in 2006–07.

Infrastructure projects within the precinct, either underway or being planned, include the Gateway Upgrade Project, Port of Brisbane Motorway, Northern Access Road Project, Berths 11 and 12 at Fisherman Island, the Airport Link Road Project and the New Parallel Runway. The economic impact of these projects is predicted to be a further $1.8 billion. ATC also plays an important role coordinating infrastructure and planning in the region, and facilitates investment and trade.

**Innovation in animal plasma production—Department of Tourism, Regional Development and Industry**

A collaboration between two universities and a local biopharmaceutical company has enabled the production of new plasma products for the treatment of septic shock in animals. Plasvacc, a company established in 1996, manufactures and distributes high-quality blood plasma products used to supplement the immune response system in animals. The company is also looking to apply its extensive knowledge of animal plasma immune therapy to infectious disease therapy for humans. This could provide significant global market opportunities, create new jobs and increase export revenues. Plasma therapy shortens the course of treatments, reduces hospitalisation periods and the quantity of drugs required to treat a variety of medical conditions.

The collaboration between Plasvacc, The University of Queensland and the University of Southern Queensland was facilitated by the Australian Institute for Commercialisation (AIC). AIC worked with Plasvacc to identify their technology and information. They then conducted an extensive search of research organisations to locate the required expertise. AIC facilitated an agreement for transferring the relevant knowledge from the universities to Plasvacc as part of a three-way collaborative partnership that will continue to stimulate innovation in immune therapy.

Plasvacc is located in the Scenic Rim region of rural SEQ, and is committed to supporting the development of communities and industry in the area with the majority of Plasvacc employees residing near Boonah. Plasvacc is also committed to supporting local businesses by forging strong commercial links with local suppliers of goods and services. This is a positive example of the growth of knowledge-based industries to export information and technology from the rural sector of the Smart State and improve disease prevention on a global scale.

AIC is a leading service organisation helping innovators achieve commercial success. Around Australia, AIC helps business, research organisations and governments convert their ideas into successful outcomes. They address market gaps and accelerate the commercialisation of know-how and technology that clients have created. For more information, visit <www.ausicom.com>.
Infrastructure

SEQ Infrastructure Plan and Program—Department of Infrastructure and Planning

South East Queensland Infrastructure Plan and Program (SEQIPP) outlines the government’s infrastructure priorities to support the SEQ Regional Plan to 2026 and represents an unprecedented long-term commitment to capital works in SEQ. SEQIPP was first released in May 2005 and has been updated annually to align with the latest planning and budget commitments. The 2008 update of SEQIPP involved a comprehensive review of the program based on detailed analysis of infrastructure estimates, priorities and sequencing.

SEQIPP is the principal mechanism for identifying, prioritising and delivering infrastructure projects in SEQ. Linked to the annual state budget process, it assists the coordination of infrastructure and services across a range of state agencies and government-owned corporations, as well as providing a key guide to local government and the private sector. By providing greater certainty on the nature and timing of regional infrastructure projects and through improved coordination processes, SEQIPP is seen as fundamental to the development of a well-planned and sustainable region.

SEQIPP has made significant progress, with expenditure to December 2007 totalling $8.5 billion, 162 projects completed, and 293 projects underway. SEQIPP processes have identified a range of pressures on the region, which are being met by the highest priority infrastructure delivery initiatives, such as the SEQ Water Grid. Through the 2008 SEQIPP review, emerging state and local government infrastructure needs have been assessed in combination with existing program priorities, taking into account capability, affordability and other relevant criteria. Substantial consultation with local government has informed the 2008 review of SEQIPP.

SEQIPP will continue to be updated annually in line with five-yearly reviews of the SEQ Regional Plan to deliver the desired outcomes of the Regional Plan. The success of SEQIPP is seen through delivery of the program within the anticipated time and budget. It also provides better integration and prioritisation of transport, water and energy supply, health and education and a range of other social initiatives.

In addition to project delivery criteria (such as ‘on time’ and ‘on budget’), SEQIPP’s success is assessed on performance against a range of infrastructure and service delivery metrics as contained in the sustainability indicators in the SEQ Regional Plan.

SEQ Water Grid—Queensland Water Commission and the Department of Infrastructure and Planning

The delivery of the SEQ Water Grid within planned time frames and budgets will be a measure of its successful implementation. Its success will be gauged by the efficiency of its operation and the added security of water supply across the region.

It will allow the coordinated use of all major bulk water sources in the region. The project includes more than 450 km of pipeline, two new dams, upgrades of existing dams, a desalination plant and three advanced water-treatment plants. When complete, the water grid will provide a system yield from existing and committed sources of 684 000 megalitres per year.

The SEQ Water Grid will allow risk to be managed at a regional level rather than on an individual water-storage or water-supply system basis. It will also allow optimisation of use through the coordinated management of all SEQ water supply sources. The grid will be managed in order to achieve ‘level of service’ objectives as specified in the Regional Water Security Program (refer to SEQ Water Strategy Draft—March 2008). Management of the grid will balance the need to maximise water supply security with the need for least cost operation.

The SEQ Water Grid comprises the Western Corridor Recycled Water Project, the Gold Coast Desalination Project at Tugun, the Southern Regional Water Pipeline, the Northern Pipeline Interconnector, the Eastern Pipeline Interconnector and two proposed dams currently in planning stages—Traveston Crossing Dam Stage 1 and Wyaralong Dam.

Construction of the Western Corridor Recycled Water Project is expected to be complete in December 2008. The Tugun Desalination Plant is expected to be complete in November 2008 and fully operational by January 2009. The Southern Regional Water Pipeline is expected to be fully operational by the end of November 2008. Construction is underway on the first stages of both the Northern Pipeline Interconnector and the Eastern Pipeline Interconnector.
Water management

The SEQWater Farm Planning Program—SEQWater

Australian and international research consistently shows that improved catchment management is the best means of reducing downstream water-treatment costs. The Australian Drinking Water Guidelines call on drinking-water suppliers to show leadership in catchment management and to work in coordination with other agencies and partners.

SEQWater is a significant landholder owning over 38,000 ha, which represents approximately 3.5% of the land area of the regional drinking water supply catchments. Management of this land area is essential to water-quality outcomes. Additionally, the landholdings of SEQWater contain valuable biodiversity, landscape and cultural values.

SEQWater landholdings are concentrated around the buffer zones of the three dams—Somerset, Wivenhoe and North Pine. Of the 22,000 ha of land above the full supply line, approximately 14,000 ha are under long-term lease. Conditions prescribed within the current lease documents are focused on preventing further decline in land condition rather than proactive action and movement toward best practice. The recent Catchment and In-Storage Water Quality Risk Assessment highlights the need for a proactive program. Farming practices across the catchment were identified as high and very high risk to water quality for a number of reasons including pathogen risk (Cryptosporidium, Giardia and bacteria) and sedimentation.

Fundamental to the development of farm management plans is the systematic approach of identifying and implementing management actions to address specific hazards and high-risk activities to the quality of surface waters that arise from the operation of an enterprise.

Examples of actions that have been funded include riparian zone fencing, off-stream watering points, vegetation establishment and weed control. An important aspect of improving water quality for grazing is ensuring adequate ground cover. Farm plans address this issue through establishing frameworks and investment for pasture management and rotational grazing.

Under the program, 73 farm plans have been developed and 43 properties have been funded to implement works. Fifty-nine per cent of leased land is now under a farm management plan with another 8% soon to be included. It must be noted that because of the partnership approach taken, the level of co-investment from landholders in these outcomes has been significant and resulted in a far greater scope of works than sole investment by SEQWater would have achieved.

Community attitudes to rainwater tanks and recycled water—Natural Resources and Water

Two of the strategies being used to manage demand on limited town water supplies are household rainwater tanks and recycled water supplied to homes through special dual-supply pipes. This research project has been tracking the experience of people who have recently installed a rainwater tank for their home in an urban area or who have moved to the Pimpama–Coomera development zone on the Gold Coast. In that zone, recycled water systems are being installed to return waste water treated to A+ standard back to homes in dedicated networks of purple pipes. While a lot of research has asked about the willingness of people to use tank water and dual supplies, this project used a telephone survey to find out what really happens over the first few years.

An interesting finding was that few residents were concerned about problems with using recycled water for flushing their toilets or on their gardens. In fact the residents chose to live in an area with recycled water primarily because they wanted to live in that region and recycled water was incidental to the decision. There was an extremely high level of trust in the dual supply and the safety of the system. A concern is that many residents think the recycled water will not have use limitations and this means that grey water reuse and rainwater tanks are not being taken up because recycled water is available.

Another theme in the research was comparing the way rainwater tanks are being used by households who chose to install them with their use in new homes that have them because of development regulations. The retrofitted tanks are mainly installed by retired couples and used primarily for watering gardens, whereas in the new developments tanks are owned by younger families and are not being used efficiently beyond the required toilet or laundry connections. The research highlighted the need for education strategies to help tank owners maintain their tanks, and the difficulty in encouraging the use of garden tank water for other uses that could reduce demands on town water supplies.
Integrated transport

Land use and public transport accessibility index—Queensland Transport

How easy is it for people to access the places where they like to shop or get medical attention? What choices do children, parents and staff have when accessing their local school? ‘Accessibility’ is a concept used by land-use and transport planners to help appreciate the quality of both individual and social experiences in accessing people, places and activities.

Accessibility is made possible by careful and appropriate land-use and transport planning. This includes areas where recreation, residential, employment, and community services are in close proximity to one another; areas that are self-contained, minimising the need to travel beyond the local vicinity; and areas that are serviced by a variety of transport systems.

When people live, work, or play in an area with high accessibility, they enjoy choice in their travel options and destinations. High accessibility also ensures that as many people as possible have as much choice as possible.

Accessibility is both an indicator and key ingredient of a sustainable transport system. To deliver on its commitment to sustainability and integrated transport, Queensland Transport has been developing an innovative planning tool called the Land Use and Public Transport Accessibility Index (LUPTAI).

LUPTAI will assist planners, policy makers and development assessors to improve accessibility.

The LUPTAI tool measures how easy it is for walkers and public transport users to access health, education, banking, shopping, open space and recreation, and/or employment from their homes. It does so using a computer-generated geographic information system (GIS). The tool produces maps giving a visual representation of the opportunity to reach places by public transport, and walking. A five-colour scale shows the level of access for any given area, ranging from none, poor, low, medium to high.

Gold Coast Oceanway—Gold Coast City Council

In 1988, Gold Coast City Council resolved to construct wide pavements to support the growing number of visitors to Surfers Paradise. This widening was the first step to creating the Oceanway.

The Oceanway travels the breadth of the city’s surf foreshore, running through 12 coastal suburbs. For the last 20 years, the council has continued allocating funds to build the various links in the chain, and has also upgraded existing stretches to meet disability requirements. The Oceanway also provides world-class ecotourism experiences, including the World Heritage listed Marine Park, the littoral rainforest along the Spit, and the Burleigh Heads rainforest, which rivals the Cairns hinterland in biodiversity.

One objective of the Oceanway project is to create an attractive walking or cycling experience for people of all mobility. In turn, this increases access to Gold Coast beaches, decreases the number of cars on the roads, reduces the demand for parking in sensitive coastal landscapes, promotes a healthier population, and reduces the coastal footprint.

The Oceanway outcomes include:

- 1998 Award for Excellence in Environmental Planning
- 2001 Community Safety Award
- 2003 Healthy Heart Award for Active Lifestyles
- 2004 Queensland Award for the Clean Beach Challenge
- 2005 Award for Services to the Disabled Community.

The state government has recognised the value of the program by contributing significant funds to the Oceanway through the SEQ Regional Bikeways Network. The government is currently providing $250,000 for a program to build a 550-m section of the Oceanway at the southern end of the Spit.

Council continues to increase awareness of the Oceanway through regular marketing and communication programs. The central messages communicated via the media in particular, are around the tourism experience, the health benefits of walking or cycling the Oceanway, and the environmental benefits of leaving the car in the garage.
Challenges and opportunities

In an environment where planning for climate change, meeting the demands of a rapidly growing population and fostering healthy lifestyles present many challenges, opportunities abound for taking fresh and innovative approaches to addressing issues. Several successes and challenges have been highlighted in this report. The successes include:

- SEQ continues to offer a good quality of life to residents and visitors.
- The region has good air quality, sustainable fisheries, many scenic areas and extensive protected areas.
- People in SEQ have a generally high standard of health, education and socio-economic advantage.
- The SEQ Regional Plan has successfully limited urban development to the urban footprint, limiting the negative impacts of urban sprawl.
- The regional economy is strong and continuing to grow.
- Water use has been substantially reduced as a result of cooperation from all residents and businesses.
- Public transport patronage is continuing to increase.

However, several challenges have also been identified, including:

- We are continuing to use more than our share of global resources.
- The region’s biodiversity is threatened by continuing loss of habitat and critical regional ecosystems.
- Our ability to enjoy the outdoor lifestyle is limited by the declining availability of open space per capita.
- Some aspects of our lifestyles are unhealthy and may lead to a decline in health status in the future.
- The attractiveness of the region to new residents has led to a decline in housing affordability.
- The gap between Indigenous and non-Indigenous health, education, employment and housing is still wide.
- Electricity use is increasing.
- We are travelling further and more often, resulting in road congestion and environmental impacts.

Government cannot and does not act alone; achieving sustainability is the responsibility of all. Already we are seeing behavioural shifts: SEQ residents and businesses are much more conservative in the use of water; many are active participants in the recycling and re-use of wastes; residents are more frequent users of public transport; and are better informed about their purchases, opting for energy- and water-saving products. New home buyers and renovators are adopting sustainable building practices and a greater proportion of the community is engaging more frequently in healthy pursuits. Nonetheless, more can be done. We must continue to work together using the SEQ State of the Region Report to identify the challenges facing sustainability and use the SEQ Regional Plan and other Queensland Government policies to confront them.

Better planning for the future

The data and information contained in the SEQ State of the Region Report has informed the development of the draft SEQ Regional Plan 2009–2031 (draft SEQ Regional Plan). The publication of the SEQ State of the Region Report enables the SEQ community to provide comment on the draft SEQ Regional Plan based on accurate and relevant regional information. The draft SEQ Regional Plan will be available for public consultation for four months.

A range of more detailed plans and strategies are also being developed or implemented consistent with the SEQ Regional Plan, to achieve the regional vision. These include:

- The **SEQ Natural Resource Management (NRM) Plan** provides a focus for government and investment to support landholders to manage the region’s natural resources. The NRM Plan is available at <www.seqcatchments.com.au>.
- The **SEQ Healthy Waterways Strategy 2007–2012** contains 12 action plans to collaboratively deliver healthy waterways and catchments. It is available at <www.healthywaterways.org/strategy_pdfs.html>.
- The **SEQ Infrastructure Plan and Program (SEQIPP)** outlines $107 billion worth of investment in infrastructure needed over the next 20 years to support the SEQ Regional Plan. It is available at <www.dip.qld.gov.au/regional-planning/south-east-queenslandinfrastructure-plan-and-program.html>.
• The draft South East Queensland Water Strategy provides regional water planning to meet the region’s water supply needs for the next 50 years. It is available at <www.qwc.qld.gov.au/SEQWS>.

• The Regional Nature Conservation Strategy for SEQ 2003–2008 aims to identify and conserve the region’s very high biodiversity values, increase levels of awareness and commitment and involve all stakeholders in the conservation and management of the region’s biodiversity. It is currently being updated.

• The draft Rural Futures Strategy for SEQ includes actions to improve the economic prosperity, environmental wellbeing and quality of life of rural SEQ. It is available at <www.dip.qld.gov.au>.

• The SEQ Integrated Regional Transport Plan was prepared in 1997 and is currently under review. More detailed transport planning has also been undertaken, including Transport 2007. It is available at <www.transport.qld.gov.au/Home/Projects_and_initiatives/Plans/Integrated_transport_plans/Transport_2007>.

Further work can also be done to continually improve our reporting systems. Although this report provides a comprehensive overview of the state of our region, there are key indicators for which data are not currently available, either because it is not collected, or because it is not available at a regional scale or for an appropriate time period. This report provides an opportunity to review the existing indicators, identify data gaps and provides a solid foundation for future reports. Major areas for future work include the collation of more local information and setting targets or goals. Local governments, natural resource management bodies and other non-government organisations collect information that could potentially be included in future State of the Region reports to provide a more detailed picture. The assessment of progress towards sustainability could also be informed by the inclusion of specific and measurable targets for each of the sustainability indicators. Some targets are currently being developed through strategic planning processes, for example through the SEQ NRM Plan and the SEQ Regional Water Supply Strategy. Assessing sustainability indicators against these targets will clearly signal whether we are on track to achieve our desired goals.

Action and Involvement
A range of initiatives and projects are already under way to improve the sustainability of our region. These are being undertaken by State and local governments, non-government organisations, community groups and individuals. Some of the actions already begun include:

• ClimateSmart 2050 establishes a long-term goal to reduce greenhouse gas emissions by 60% by 2050.

• ecoBiz partnerships provide financial assistance to businesses to achieve waste, water and energy use efficiencies.

• The Queensland Gas Scheme requires energy retailers to source at least 13% of electricity from gas, which is a less greenhouse gas-intensive source than coal.

• The installation of recycling bins in public places will reduce the amount of recyclable waste going to landfill.

• Campaigns such as ‘Nobody smokes here anymore’ encourage behavioural change to reduce unhealthy behaviours and lead to long-term positive health outcomes.

• Investment in SEQ Regional Natural Resource Management by the Australian, State and local governments in partnership with industry and landholders is addressing sustainability issues in the backyards, paddocks and waterways of the region.

• The Varsity Station Village project on the Gold Coast is transforming empty land surrounding the future Varsity Lakes station into a transit oriented community. For more information visit <www.varsitystationvillage.com.au>.

• Operational and infrastructure improvements to the public transport network under the TransLink Network Plan will reduce the need for high levels of car ownership and reduce passenger vehicles kilometres travelled. For more information visit <www.translink.com.au/qt/translin.nsf/ReferenceLookup/np_chapter2.pdf/$file/np_chapter2.pdf>.

• The SEQ Regional Freight Network Strategy seeks to improve the movement of freight within SEQ and forms the basis for developing a range of new initiatives to improve efficiency and performance For more information visit <www.transport.qld.gov.au/resources/file/ebce48434ab4ca6/Pdf_seq_regional_freight_network_strategy_full.pdf>.

• TravelSmart encourages the use of public transport, cycling, walking and car pooling via voluntary change in travel behaviour of individuals and organisation. For more information visit <www.transport.qld.gov.au/resources/file/eb1591015eb5922/Pdf_ts_brisbane_north_report.pdf>.
Further information

The draft SEQ Regional Plan 2009–2031 is available from the Department of Infrastructure and Planning website at <www.dip.qld.gov.au>.


The SoEOnline database provides detailed information on each of the sustainability indicators and is available from the EPA website at <www.epa.qld.gov.au/environmental_management/state_of_the_environment/soe_online>.

