South East Queensland

State of Region

Baseline Report 2005 – 2006

Queensland **the Smart State**

Queensland Government

Prepared by:
The Minister for Infrastructure in accordance with the *South East Queensland Regional Plan 2005–2026* State of the Region Reporting provisions.

In partnership with:
Department of Communities
Department of Energy
Department of Housing
Department of Local Government, Planning, Sport and Recreation
Department of Natural Resources and Water
Department of Primary Industries and Fisheries
Department of Public Works
Department of State Development, Trade and Innovation
Environmental Protection Agency
Tourism Queensland
Queensland Health
Queensland Police Service
Queensland Transport
Queensland Treasury

In consultation with the South East Queensland Regional Coordination Committee, Sustainability and Environmental Reporting Interdepartmental Committee and the State of the Region Working Group.

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For more information:
www.oum.qld.gov.au
http://www.epa.qld.gov.au/environmental_management/state_of_the_environment/soe_online/

Contents

Preamble

The South East Queensland (SEQ) region is Australia's fastest growing region, attracting on average 55,000 new residents each year over the past two decades. The region is also experiencing rapid employment growth and is emerging as a significant economic hub with national and international recognition.

The *South East Queensland Regional Plan 2005-2026* (the SEQ Regional Plan) will help to manage this growth and associated change in the most sustainable way and to protect and enhance the quality of life in the region. The primary purpose of the SEQ Regional Plan is to provide a sustainable growth management strategy for SEQ to the year 2026.

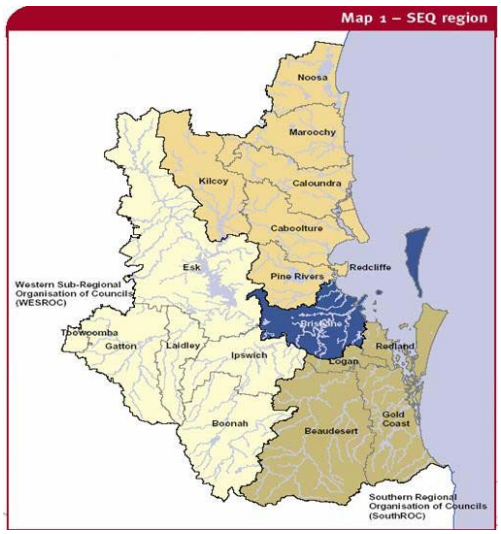
The South East Queensland region

The SEQ region comprises 18 local governments extending from the Queensland/ New South Wales border in the south to Noosa Shire in the north and west to Toowoomba City:

- Beaudesert Shire
- Boonah Shire
- Brisbane City
- Caboolture Shire
- Caloundra City
- Esk Shire
- Gatton Shire
- Gold Coast City
- Ipswich City
- Kilcoy Shire
- Laidley Shire
- Logan City
- Maroochy Shire
- Noosa Shire
- Pine Rivers Shire
- Redcliffe City
- Redland Shire
- Toowoomba City.

For the purposes of the Regional Plan, the SEQ region also includes Queensland waters adjacent to these local government areas.

MAP 1



State of the Region reporting

The SEQ Regional Plan sets out the desired regional outcomes, principles and policies to address growth management in SEQ. Sustainability is the first of the twelve desired regional outcomes listed in the SEQ Regional Plan. The desired regional outcome states:

The region grows and changes in the most sustainable way; generating prosperity, maintaining and enhancing quality of life, and providing high levels of environmental protection.

This desired regional outcome requires ongoing monitoring of sustainability and the regular production of the State of the Region report. The production of the State of the Region report involves:

- Identification of sustainability indicators (*South East Queensland State of Region Sustainability Indicators Baseline Review 2006*)
- Production of the Baseline Report 2006 to provide a benchmark point of comparison for trend assessment (this report)
- Production of the State of the Region report in July 2008.

Production of the State of the Region report is coordinated by the State of the Region Working Group and the Sustainability and Environmental Reporting Interdepartmental Committee. There are also several other reporting processes that are linked to the State of the Region reporting. These include the State of Environment reporting coordinated by the Environmental Protection Agency (EPA) for the State of Queensland; the Natural Resource Management Monitoring, Reporting and Review Working Group; monitoring and reporting undertaken by local governments (eg *Our Living City report 2004-05* by Gold Coast City Council), monitoring and reporting undertaken by regional natural resource management bodies (eg SEQ Catchments and Burnett Mary Regional Group) and monitoring and reporting undertaken by non-government organisations (eg *Measuring our progress towards sustainability* 2003 by Friends of SEQ).

State of the Region report 2008

The State of the Region report will be produced in mid 2008 as part of the five-year review of the SEQ Regional Plan. The report will provide information on environmental, economic and social sustainability indicators that are linked to the desired regional outcomes of the SEQ Regional Plan. The 2008 State of the Region report will inform the community, government and industry on the region's progress towards sustainability. The report will also inform the review of the SEQ Regional Plan.

The 2008 State of the Region report will be produced as two complementary documents: a brochure and a technical report. The technical report will be similar in format to this baseline report and will provide detailed data and interpretation for all indicators. It will be available via SoE*Online*. The main audience of the technical report will be technical officers, planners and decision makers.

The State of the Region brochure will be aimed at informing the general community, industry and government on the region's progress towards achieving sustainability. The brochure will be published in the style of a newspaper lift-out and will also be available online, for distribution to a wide audience. It will include summary information for all indicators, detailed interpretation for key indicators under each desired regional outcome, case studies, independent editorials, achievements and challenges.

The State of the Region report will provide an important source of information for the community, industry and government in meeting the challenge of continuing to improve the sustainability of SEQ.

State of the Region Baseline Report 2006

This baseline report is the first report on the sustainability indicators identified in the *SEQ State of Region Sustainability Indicators Baseline Review*. The objective of this report is to provide a benchmark or baseline for point of comparison for assessing trends in sustainability in the 2008 State of Region report. It can also be used to identify data gaps that need to be filled prior to the preparation of the State of Region report.

This report is based on the desired regional outcomes identified in the SEQ Regional Plan. Data and interpretation are provided for each of the indicators. Further detailed information on the indicators, data collection methods and analysis is available via SoE*Online* (http://www.epa.qld.gov.au/environmental_management/state_of_the_environment/soe_online/). Each indicator is identified in SoE*Online* by a number relating to the relevant DRO (eg SEQ SU04 is an indicator under the Sustainability DRO). Detailed use of the data and interpretative text should be done only in conjunction with the detailed information provided on SoE*Online*. The information provided for each indicator in this report and on SoE*Online* is detailed in the following table.

Information	Baseline report	SoE*Online*
Theme	✓	✓
Key issue	×	✓
Indicator	✓	✓
Indicator type	×	✓
Data	✓	✓
Interpretation	✓	✓
Indicator author	×	✓
Related indicators	✓	✓
Other data and links	✓	✓
Source dataset	×	✓
Transformation	×	✓
Presentation	×	✓
Data quality	×	✓
Spatial coverage	×	✓
Temporal coverage	×	✓
Update frequency	×	✓
Mandate	×	✓
Created by	×	✓
Date created	×	✓
References	×	✓

This baseline report is a compilation of the data and information supplied by the relevant state agencies in 2005-2006. The information has not been edited to form an integrated report, and the style and scale of the information provided may vary. However, this report and the detailed data available on SoE*Online* provide a

valuable source of information and point of comparison for the State of the Region 2008 report.

The State of Region Baseline Report 2005-2006 is based on the SEQ Regional Plan and sustainability indicators as at June 2006. Subsequent amendments to the SEQ Regional Plan (Amendment 1, October 2006), 2006 Household Census outcomes and development of new indicators to identify data gaps will be included in the State of Region 2008 Report.

Feedback

Comments on this document and suggestions for State of the Region reporting are invited and should be directed to OUM or via SoE*Online*.

For more information

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Disclaimer

Desired Regional Outcome 1—Sustainability

The region grows and changes in the most sustainable way; generating prosperity, maintaining and enhancing quality of life, and providing high levels of environmental protection.

SEQ SU04 Population distribution within regional land use categories

The estimated proportion of people living in regional land use categories for each Local Government Area in South East Queensland

State of Environment Theme: Human settlements

Results

Introduction

Five Regional Land Use categories are defined in the SEQ Regional Plan:

- Urban Footprint
- Regional Landscape and Rural Production Area
- Rural Living Area
- Investigation Area
- Mt Lindesay/North Beaudesert Study Area.

The existing population of the SEQ region is predominantly urban, and occurs mainly in areas defined by the Urban Footprint. This population is not evenly distributed across the region—the coastal metropolitan area, which includes most Local Government Areas within Brisbane City, northern local government areas and SOUTHROC, contains around 90 % of the region's Estimated Resident Population.

The Estimated Resident Population (ERP) of each Regional Land Use category within Local Government Areas of the SEQ Region is likely to vary in the longer term, as population growth stimulates outward residential development into greenfield areas. While most growth will occur within the defined Urban Footprint in the short to medium-term, the future designation of land within the Investigation Areas and the Mt Lindesay/North Beaudesert Study Area will influence the eventual population distribution.

Estimated resident population distribution by Regional Land Use Categories and Local Government Area

The estimated resident population of SEQ at 30 June 2004 is distributed by Regional Land Use categories within each Local Government Area. This measure is derived by grouping the populations of all Collection Districts falling within the Regional Land Use boundaries defined by the SEQ Regional Plan. Around 92 % of the SEQ Region's population currently lives within the Urban Footprint area, with a total of only 6 % living in the Rural Living Area and the Regional Landscape and Rural Production Area.

Toowoomba City, Brisbane City and Ipswich City have the highest proportions of population living within the Urban Footprint. By contrast, Laidley Shire and Esk Shire have less than half of their populations within the Urban Footprint, with Gatton and Laidley Shires also having high proportions of non-urban population. Since 61 % of Beaudesert Shire's population falls within the Mt Lindesay/North Beaudesert Study Area, the final distribution pattern of its population into the Urban Footprint and other categories cannot be accurately ascertained at present.

Known information gaps

Estimates of the resident population are based on Census counts, and are updated by ABS during the inter-censal period using growth indicators.

Actual population distribution within Regional Land Use categories may vary slightly from these estimates. The proportion of population within each Regional Land Use category is based on the distribution of the ERPs of all Collection Districts falling within each land use category's boundary. Since Collection Districts are the smallest geographical areas covered by the 2001 Census data, the allocation of ERPs to categories where the Regional Land Use boundaries divide a Collection District can only be estimated. Where that occurs, the population is distributed proportionally to each category according to the probability of highest population distribution.

Local Government Area	Distribution of Estimated Resident Population into Regional Land Use Categories, June 2004					
	Urban Footprint	Regional Landscape and Rural Production Area	Rural Living Area	Investigation Area	Mt Lindesay/ Nth Beaudesert Study Area	Total Population
Brisbane City	**98%**	**2%**	**0%**	**0%**	**0%**	**957,010**
Caboolture Shire	91%	6%	1%	2%	0%	**126,729**
Caloundra City	86%	5%	9%	0%	0%	**86,468**
Kilcoy Shire	54%	46%	0%	0%	0%	**3,467**
Maroochy Shire	83%	8%	9%	0%	0%	**141,069**
Noosa Shire	72%	16%	12%	0%	0%	**47,606**
Pine Rivers Shire	89%	4%	6%	0%	0%	**139,228**
Redcliffe City	96%	4%	0%	0%	0%	**52,303**
TOTAL North	**87%**	**7%**	**6%**	**0%**	**0%**	**596,870**
Beaudesert Shire	21%	16%	2%	0%	61%	**59,393**
Gold Coast City	96%	3%	0%	0%	0%	**469,214**
Logan City	95%	2%	0%	0%	3%	**173,331**
Redland Shire	93%	7%	0%	0%	0%	**127,777**
TOTAL South	**90%**	**4%**	**0%**	**0%**	**5%**	**829,715**
Boonah Shire	61%	35%	0%	5%	0%	**8,567**
Esk Shire	45%	49%	7%	0%	0%	**15,206**
Gatton Shire	52%	25%	22%	0%	0%	**16,288**
Ipswich City	97%	3%	0%	1%	0%	**135,579**
Laidley Shire	27%	32%	41%	0%	0%	**13,351**
Toowoomba City	100%	0%	0%	0%	0%	**94,043**
TOTAL West	**88%**	**8%**	**4%**	**0%**	**0%**	**283,034**
TOTAL SEQ Region	**92%**	**4%**	**2%**	**0%**	**2%**	**2,666,629**

Source: Prepared from Australian Bureau of Statistics, Regional Population Growth, Australia and New Zealand, 2003-2004, Cat No 3218.0 and companion data; ABS Regional Population Growth (various editions), Cat No 3218.0 unpublished data; and Planning Information Forecasting Unit sources.

SU04.1 Distribution of Estimated Resident Population into Regional Land Use Categories, June 2004.Date range: 30/06/2004 - 30/06/2005

Desired Regional Outcome 2—Natural Environment

A healthy natural environment supports the region's rich biodiversity, clean air and water; and is sustainably managed to support economic development, outdoor lifestyles and community needs.

SEQ NE01 Aquatic ecosystem health

Aquatic ecosystem health - water clarity, dissolved oxygen and nutrient levels in SEQ waterways

State of Environment Theme: Estuaries and sea

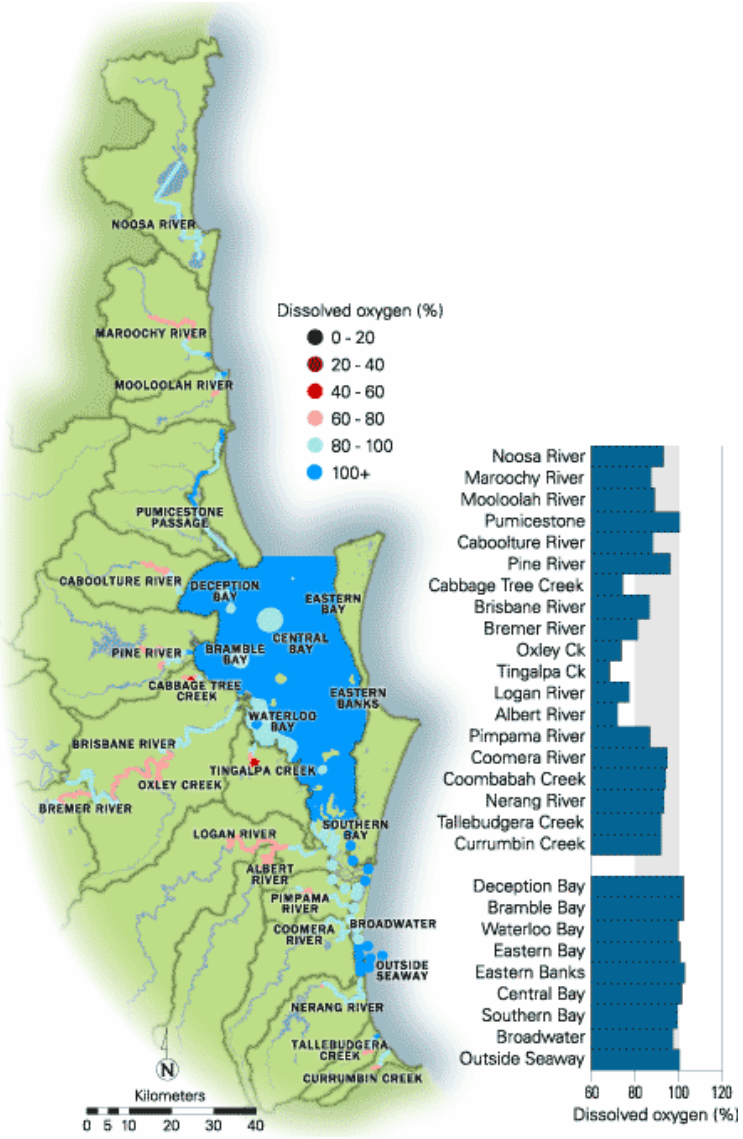
Results

Dissolved Oxygen

Aquatic flora and fauna and a diversity of biochemical processes are dependent on dissolved oxygen (DO). Photosynthesis (oxygen producing) and respiration (oxygen consuming) are biotic processes that affect DO levels in the water column. Organic matter, such as treated wastewater and dead plant material, can have significant effects on DO concentrations as oxygen is rapidly consumed during microbial decomposition of organic matter leading to depleted water column DO levels. Reduced DO can lead to fish kills and poor health in other aquatic organisms. Abiotic factors such as salinity and temperature, which determine oxygen saturation, and the availability of light, which can determine photosynthetic rate, can also influence DO concentrations.

The poorest median and most variable DO concentrations in SEQ occur in those estuaries impacted by elevated nutrients, fluctuating phytoplankton populations or poor water clarity. Tingalpa, Oxley and the Albert estuaries generally exhibit the lowest median DO concentrations.

Dissolved oxygen levels in Moreton Bay are consistent throughout with median levels rarely dropping below 90 %. These consistent concentrations can be attributed to low organic loads, low phytoplankton biomass and a well mixed water column.



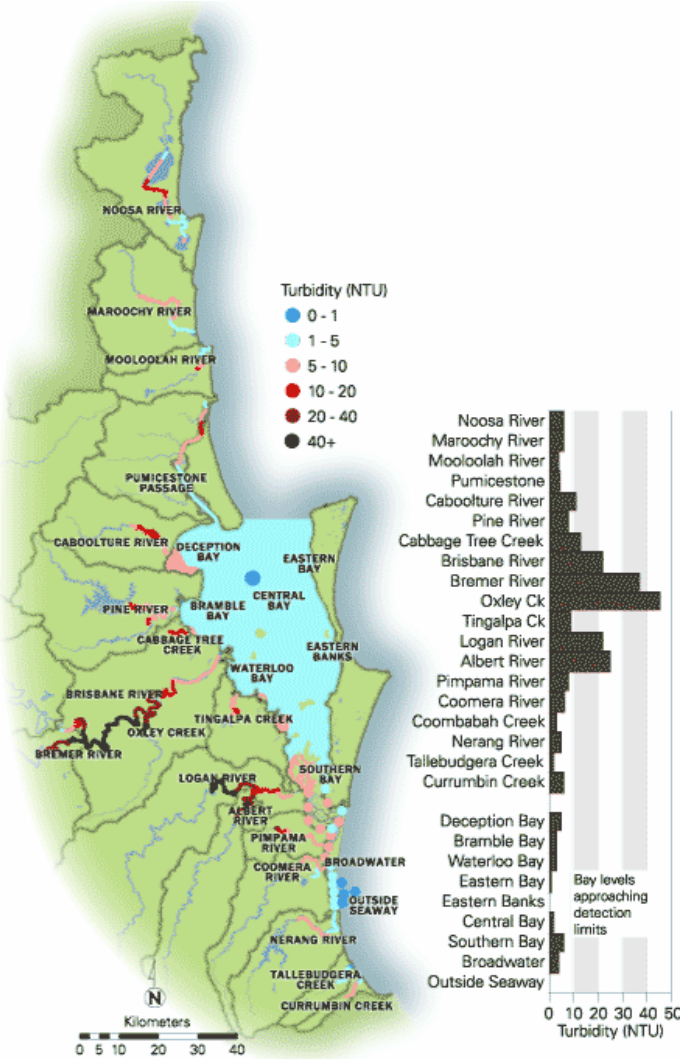
NE01.1 Annual median dissolved oxygen (DO) concentrations. Date range: 1/07/2004 - 1/07/2005

Water Clarity

Water clarity is assessed by the Ecosystem Health Monitoring Program (EHMP) by measuring light penetration into the water column using nephelometry (light scattered by suspended particles) in the estuaries and Secchi depth in Moreton Bay.

The poorest water clarity is generally found in the Brisbane/Bremer/Oxley and Logan/Albert estuarine systems. Dredging at the mouth of the Brisbane River allows strong tidal movement to extend far up the estuary which leads to continual sediment resuspension. Poor water clarity in the Oxley and the Bremer estuaries is due to high sediment loading in runoff following rainfall, continual tidal resuspension of sediment and from exchange with the highly turbid Brisbane estuary.

Water clarity in Moreton Bay typically follows an east-west gradient with poor clarity in western embayments. This is predominately due to resuspension of fine sediments deposited by the estuaries. Generally, resuspension is controlled by wind speed and direction, with the poorer clarity in summer months driven by strong South East to north-east winds. In contrast, water clarity is better in the winter months when weaker, more westerly winds predominate.



NE01.2 Annual median water clarity. Date range: 1/07/2004 - 1/07/2005

Nitrogen

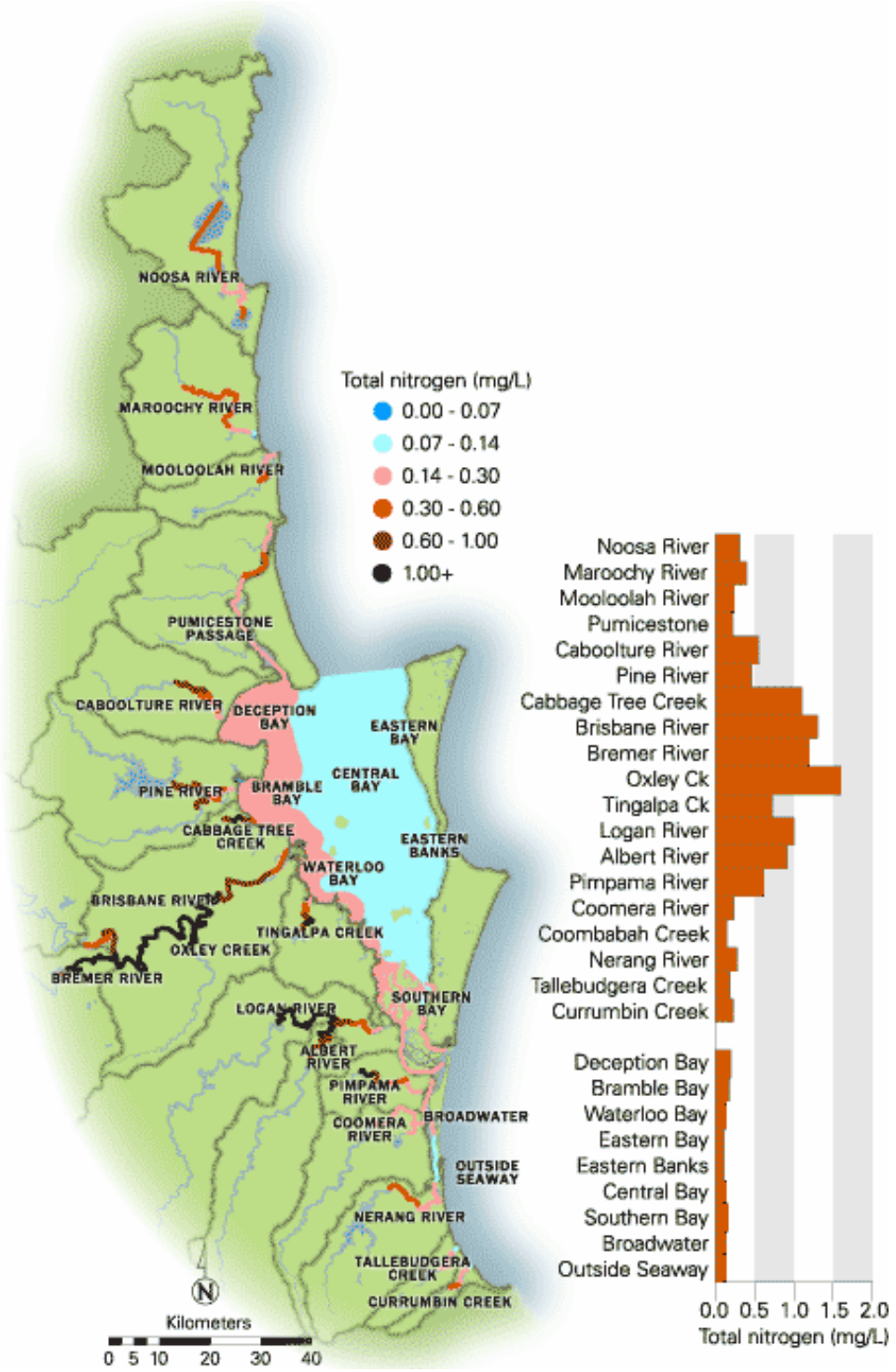
The estuarine and marine component of the EHMP measures total nitrogen (TN) and dissolved inorganic nitrogen (DIN) in the surface waters of all monthly monitoring sites. Total nitrogen comprises dissolved inorganic nitrogen, dissolved organic nitrogen and particulate nitrogen whilst dissolved inorganic nitrogen constitutes nitrate (NO_3), nitrite (NO_2) and ammonia (NH_4). Typically, sewage treatment plants (STPs) are responsible for the largest point sources of nitrogen in SEQ waterways whilst run-off from rainfall contributes to shorter pulses of elevated nitrogen concentrations.

Estuaries with the highest annual median TN concentrations are also those that receive high STP loads. Oxley Creek recorded the highest TN concentrations in SEQ. The Brisbane/Bremer and Logan/Albert systems also exhibit high TN concentrations caused by high loads from several STPs in both systems.

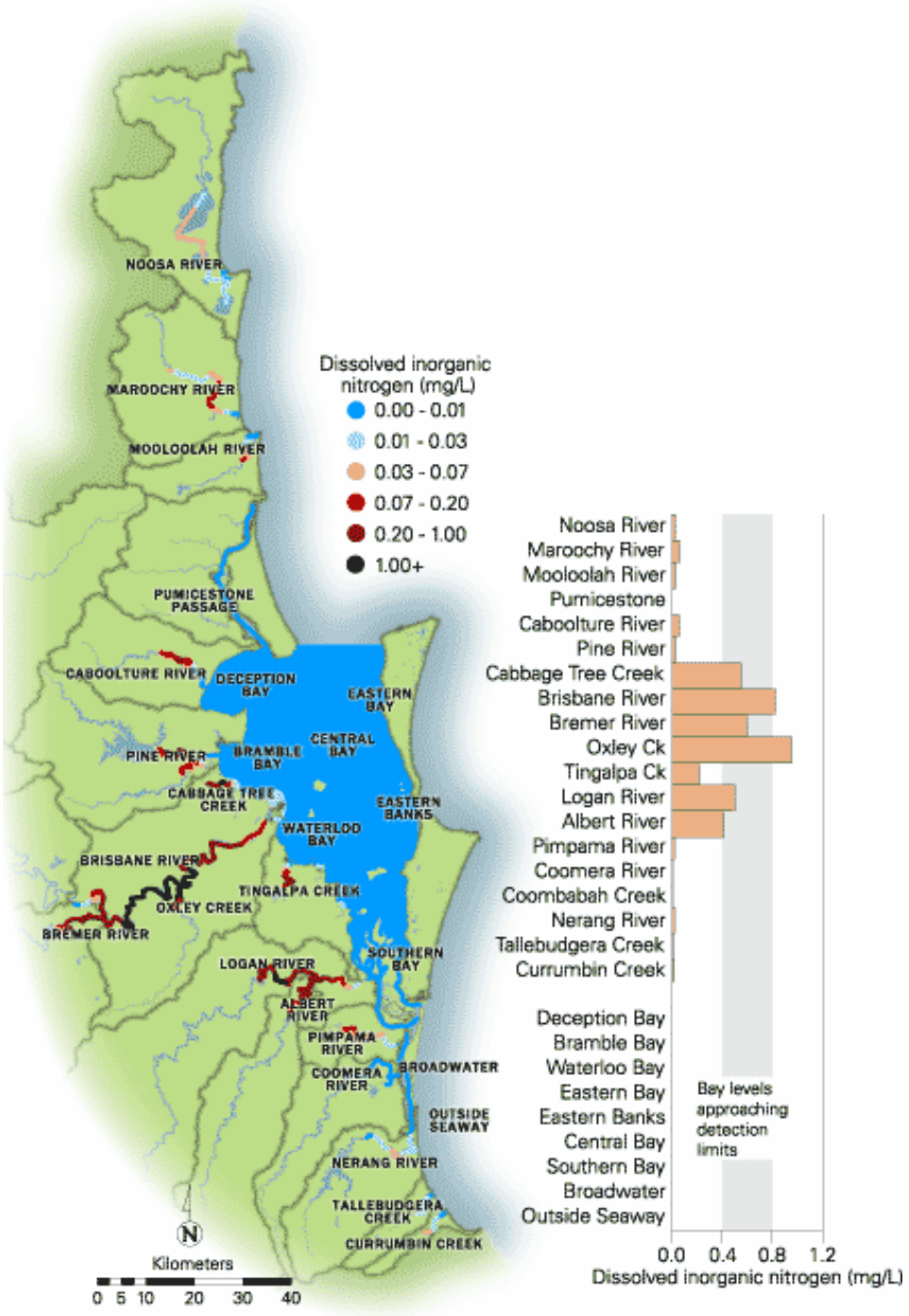
TN is also elevated in both the Pimpama and Noosa estuaries, despite neither system receiving STP discharges. In the Pimpama, much of the TN results from organic nitrogen, sourced from surrounding cane farms and is trapped by the weir 4 km upstream from the mouth. Total nitrogen in the Noosa estuary is affected by DIN which is thought to be released after anaerobic processing of organic matter in the sediments under certain conditions.

The estuaries with no STP discharge and free exchange with oceanic water, like many of the Gold Coast estuaries and the Mooloolah estuary, are generally low in concentrations of nitrogen. These systems are characterised by a rapid decrease in nutrient concentrations following initial nutrient peaks after heavy rainfall.

Compared to the estuaries, water column nitrogen concentrations in Moreton Bay are low. Median DIN levels approach the method detection limit at most sites due to rapid uptake and processing by phytoplankton populations in the bay. Nitrogen uptake is more limited in the estuaries due to lower light availability caused by higher turbidity. The highest nitrogen concentrations occur in the western and southern bay due to the proximity of the riverine and coastal STP discharges. Lowest concentrations are observed in the Eastern Bay and are indicative of a system with extensive oceanic flushing and low water residence times.



NE01.3 Annual median total nitrogen (TN) concentrations. Date range: 1/07/2004 - 1/07/2005



NE01.4 Annual median dissolved inorganic nitrogen (DIN) concentrations. Date range: 1/07/2004 - 1/07/2005

Phosphorus

The estuarine and marine component of the EHMP measures both total phosphorus (TP) and filterable reactive phosphorus (FRP). Total phosphorus includes both the particulate form (phosphorus bound to inorganic matter like clay and organic compounds like plankton, proteins, and detritus) and dissolved phosphorus species (including inorganic orthophosphates, polyphosphates and organic colloids).

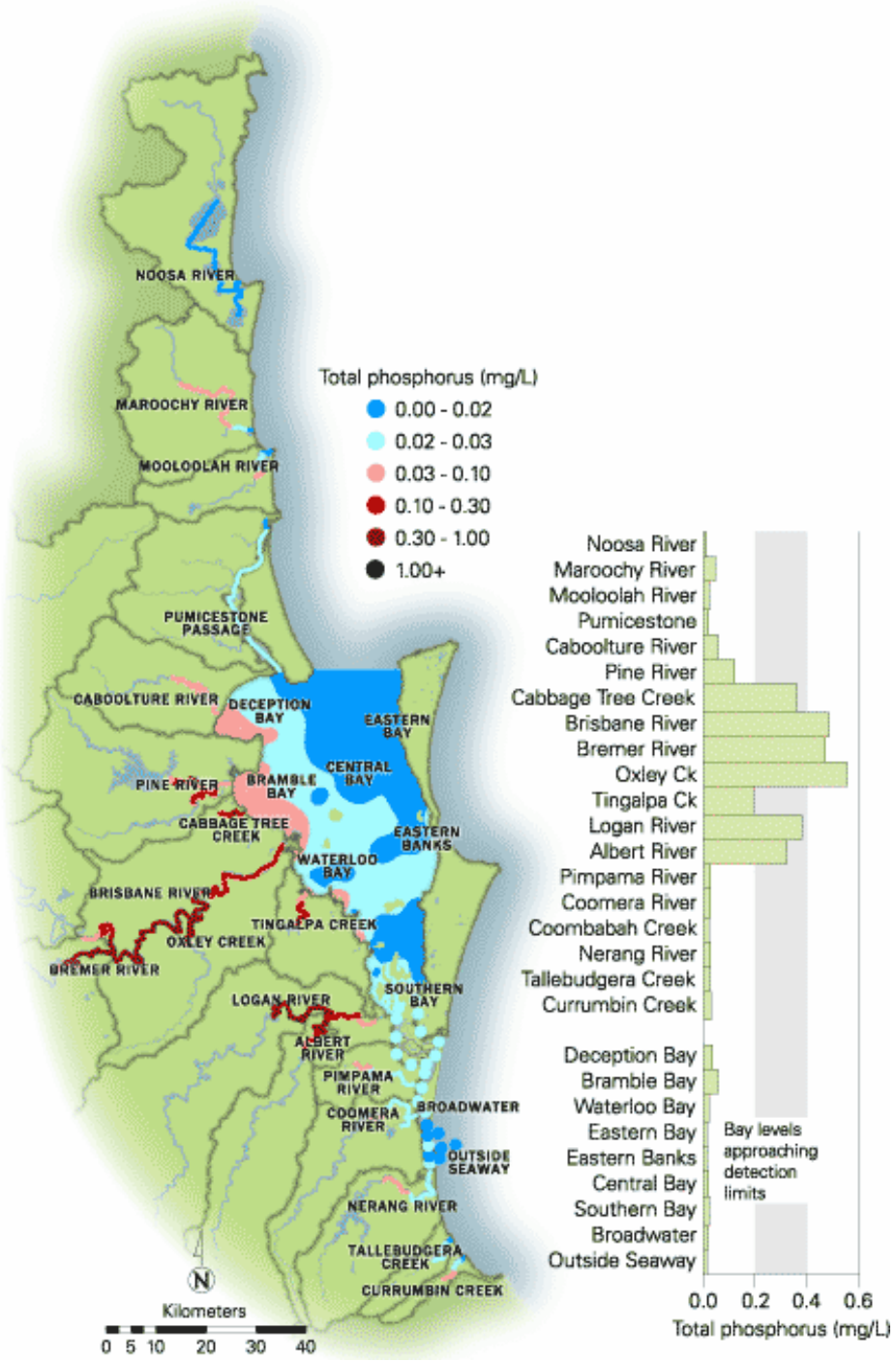
The highest concentrations of phosphorus in SEQ waterways generally occur in the mid to upper reaches of rivers and adjacent to STP discharges. Biological processing in the waterway and biogeochemical processes (e.g. release and adsorption with sediment particles) also drive phosphorus concentrations in SEQ waterways. In systems with no STP discharges, phosphorus concentrations are slightly elevated in the upper reaches and following rainfall events when diffuse loads enter through runoff and sewage overflows due to sewerage malfunction and increased taxing of sewage treatment plants.

The highest median phosphorus estuary concentrations in SEQ occur in Oxley Creek. The Brisbane/Bremer estuary, Logan/Albert estuary and Cabbage Tree Creek also exhibit elevated levels as a result of large STP loads. Concentrations of TP and FRP in the Pine and Caboolture estuarine systems are significantly lower than those in the Brisbane/Bremer and Logan/Albert systems due largely to considerably smaller STP loads. Despite this, nutrient loading in both systems still result in annual median values above SEQ water quality objective values.

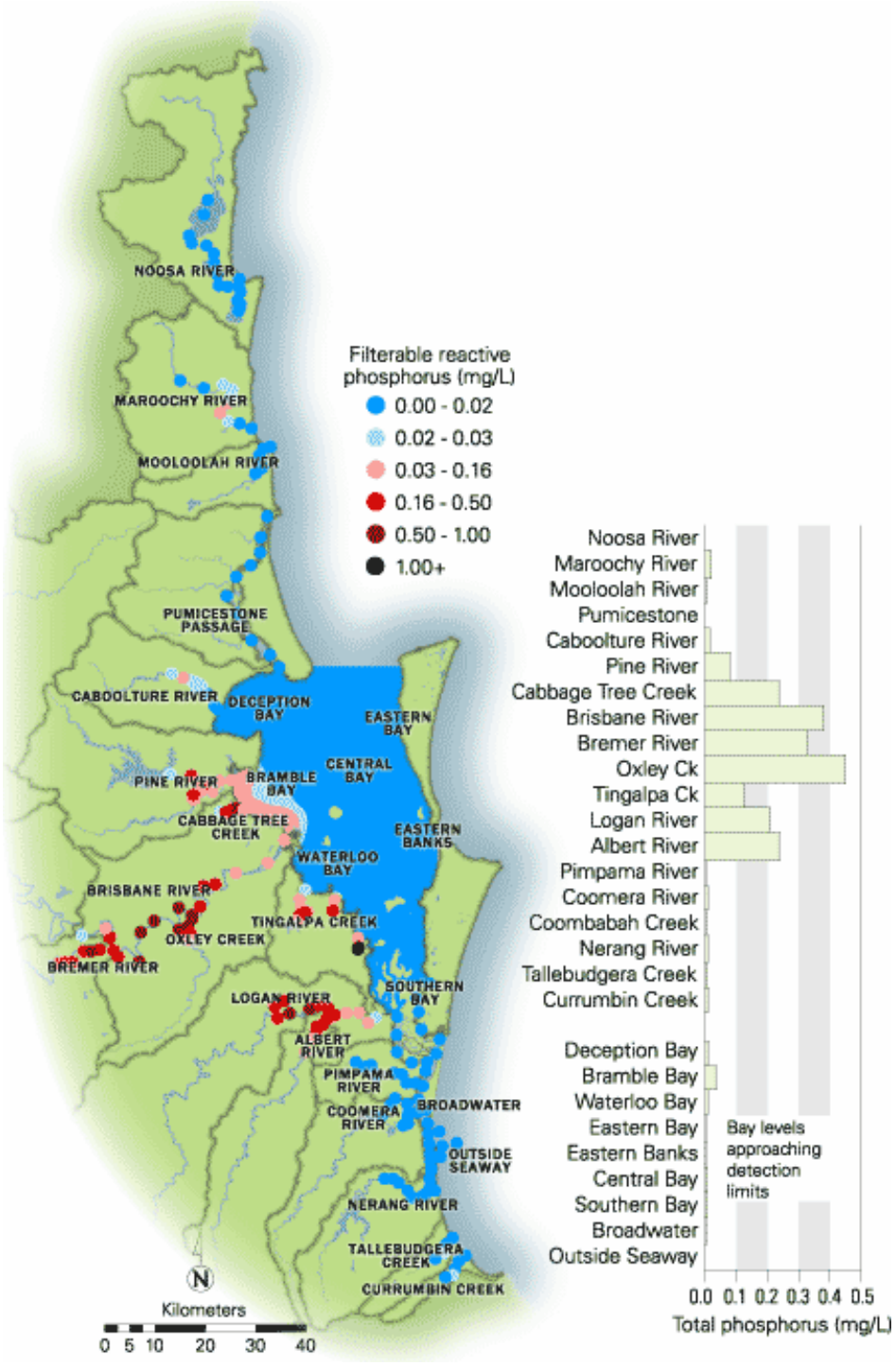
As all STP effluent from the Gold Coast is discharged to the Southport Seaway, the Gold Coast estuaries record low median phosphorus levels; however, large peaks of both water column TP and FRP concentrations occur regularly in these systems following large rainfall events.

Of the northern estuaries, the Maroochy estuary typically contains the most elevated median TP and FRP concentrations largely due to STP input. Both the Noosa and the Mooloolah estuary have annual median TP and FRP levels well beneath the SEQ water quality objectives.

Bramble Bay and the southern waters of Deception Bay had slightly elevated TP and FRP concentrations compared with other Moreton Bay zones. These systems are influenced by discharges from riverine flows and coastal STPs, demonstrated by high values recorded at sites adjacent to river mouths. Low TP and FRP concentrations are typically recorded in all other regions of Moreton Bay with nutrient limited phytoplankton populations processing biologically available phosphorus. Biological processing of phosphorus is restricted in some estuaries particularly those with elevated turbidity levels.



NE01.5 Annual median total phosphorus (TP) concentrations. Date range: 1/07/2004 - 1/07/2005



NE01.6 Annual median filterable reactive phosphorus (FRP) concentrations. Date range: 1/07/2004 - 1/07/2005

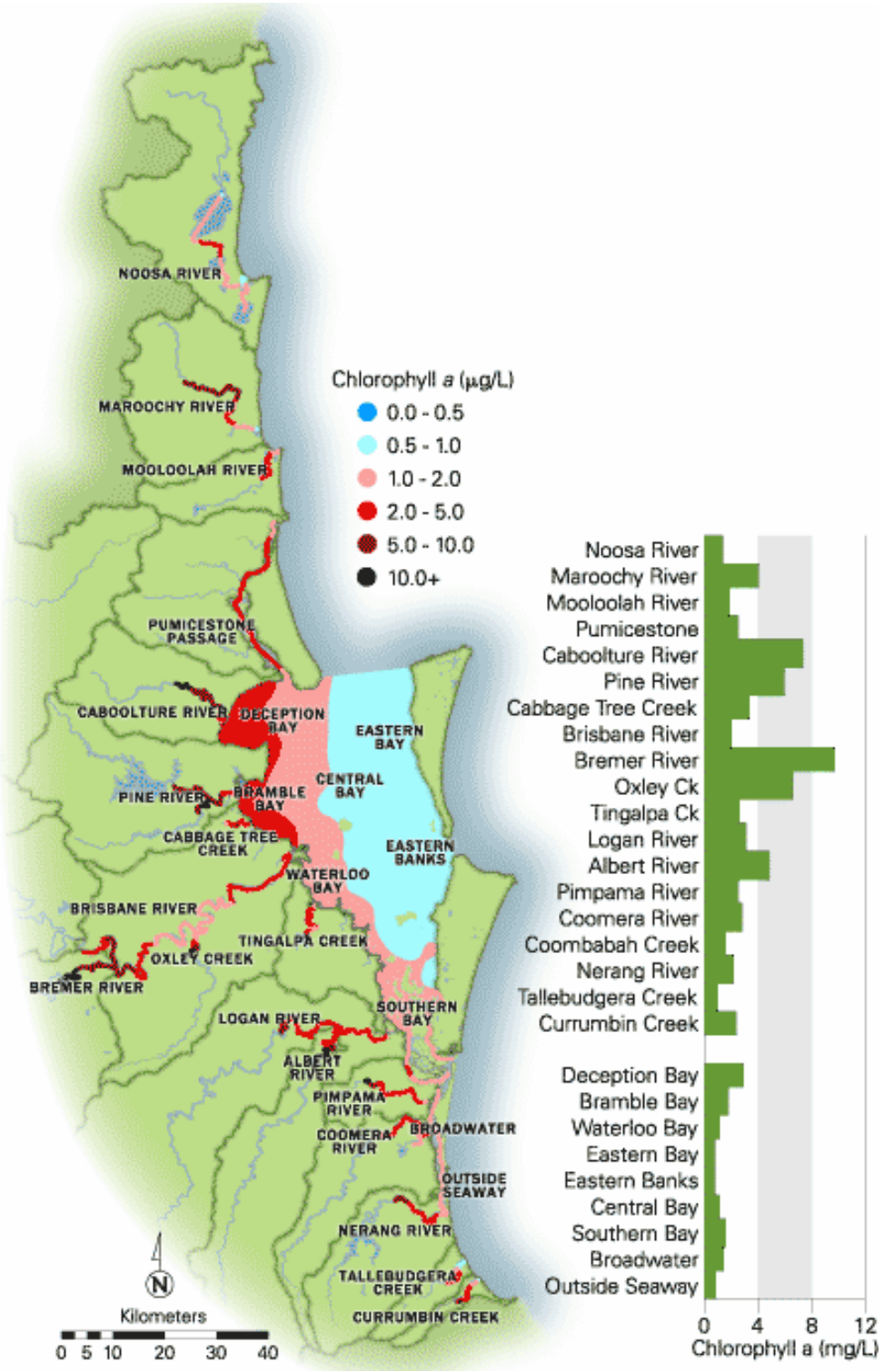
Chlorophyll *a*

Chlorophyll a is used as a measure of phytoplankton biomass and is essentially controlled by the availability of both light and nutrients. A combination of increased nutrient loading and clear waters can lead to phytoplankton blooms. This in turn can lead to elevated DO levels in the photic zone (through photosynthesis) and depleted DO in the sub-photic zone, where respiration occurs without photosynthesis and cells are broken down by microbial processes, consuming available oxygen.

Elevated chl *a* concentrations are typically found in less turbid estuaries which receive inputs from STPs. Paradoxically however, elevated chlorophyll levels have been recorded in estuaries with high annual turbidity and nutrient medians like the Bremer and Oxley estuaries. Water clarity in these systems fluctuates temporally so that when sediment levels typically decrease in the winter months when tidal flushing and rainfall runoff are limited, the conditions for phytoplankton growth become optimal and chl *a* levels increase.

The Albert, Cabbage Tree and Tingalpa estuaries are typically elevated due largely to nutrient loading from STP discharge but recently have all recorded extensive reductions in chl *a* concentration, in all cases by around 50 %. In comparison, consistently turbid estuaries such as Brisbane and Logan have maintained low phytoplankton populations. Reductions of chl *a* in some of these systems, particularly Tingalpa and Cabbage Tree have corresponded to lower nutrient concentrations, a pattern that coincides with reduced STP loading.

In Moreton Bay, the highest chl *a* concentrations typically occur in Deception Bay and Bramble Bay. These zones are affected by nutrients from riverine inputs and coastal STP discharges. The Broadwater and the Southern Bay also recorded high median levels of chl *a*. The bay zones that are well flushed with oceanic water like the Eastern Bay, generally record low median chl *a* levels.



NE01.7 Annual median chlorophyll a concentrations. Date range: 1/07/2004 - 1/07/2005

Lyngbya

The toxic cyanobacterium *Lyngbya majuscula* is generally found on seagrass beds from Pumicestone Passage in the north to the eastern and southern regions of Moreton Bay. The spatial area and density of *Lyngbya* coverage is variable temporally with new areas in the Southern Bay and Pumicestone Passage recording sparse to moderate coverage in recent years.

Lyngbya blooms occur when all environmental conditions required for optimal growth occur simultaneously. In past years, dense *Lyngbya* blooms have been found on the Eastern Banks and in northern Deception Bay (Godwins Beach and Sandstone Point), however in recent years, *Lyngbya* blooms have been recorded in Horsehoe Bay on Peel Island and on the shallow banks of the Southern Bay channels.

The environmental factors that influence the spatial and temporal extent of a bloom are still poorly understood, however blooms are thought to be triggered and/or sustained by concentrations of bio-available iron and organics in marine environments suitable for *Lyngbya* growth. Anecdotal evidence from a commercial fisherman in Deception Bay also suggests that the repeated and severe blooms experienced in this section of Moreton Bay over the last 10 years may be resulting in a shift in the benthic community from seagrass to a mixed habitat of seagrass and algae.

Related Indicators

SEQ WM02

Related links

EPA—Water quality monitoring

http://www.epa.qld.gov.au/environmental_management/water/water_quality_monitoring/

SEQ NE02 Air Quality in South East Queensland

Levels and trends in atmospheric pollutants

State of Environment Theme: Atmosphere

Results

Introduction

Data from EPA air monitoring sites nominated in the Ambient Air Quality Monitoring Plan for Queensland for determination of compliance with the relevant standards and goal of the National Environment Protection Measure (NEPM) for Ambient Air Quality in SEQ have been used in the calculation of the indices below.

Use of upper percentiles (such as the 95th percentile) provides trend information which minimises the impact of atypical emission or meteorological events compared to indicators such as the maximum or second-highest concentration.

For daily peak indices the graphs give the number of days each year when daily peak concentrations measured at EPA Air NEPM air monitoring sites in SEQ were in poor/fair/good index ranges, as follows:

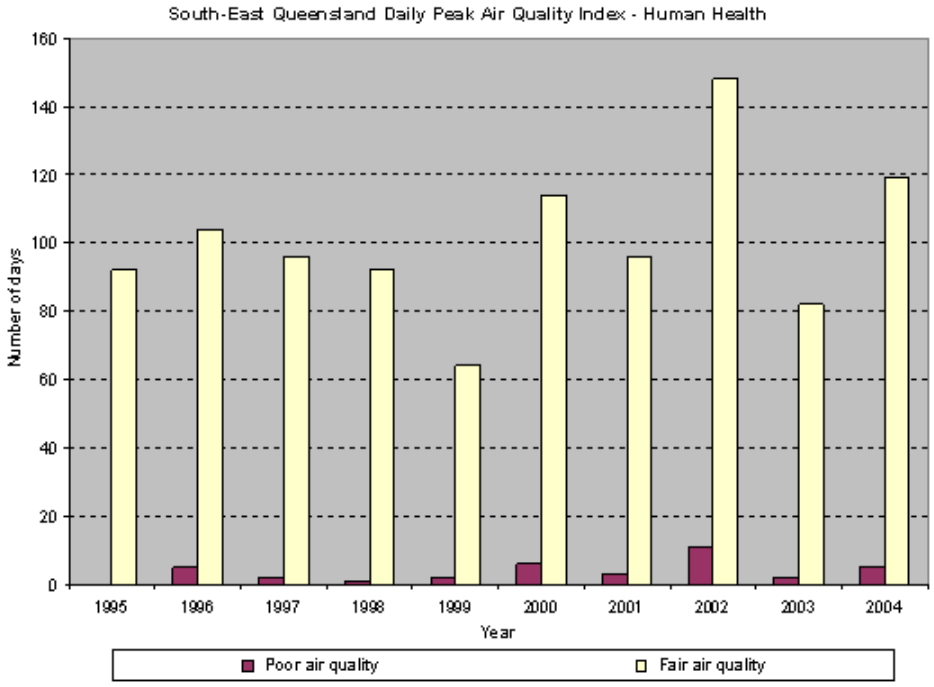
- poor - at least one monitoring site did not meet the relevant Air NEPM standard
- fair - all monitoring sites were within the relevant Air NEPM standard, but at least one site reached at least half the standard
- good - all monitoring sites were below half the relevant Air NEPM standard.

Air Index Health

Number of days each year when daily peak air quality index (based on standards developed to protect human health) measured at EPA Air NEPM air monitoring sites in SEQ were in poor/fair/good index ranges.

The standards used to derive the index were:

- 0.10 ppm ozone (1-hour average)
- 0.12 ppm nitrogen dioxide (1-hour average)
- 0.20 ppm sulfur dioxide (1-hour average)
- 9.0 ppm carbon monoxide (8-hour average)
- 50 µg/m^3 PM10 (24-hour average)

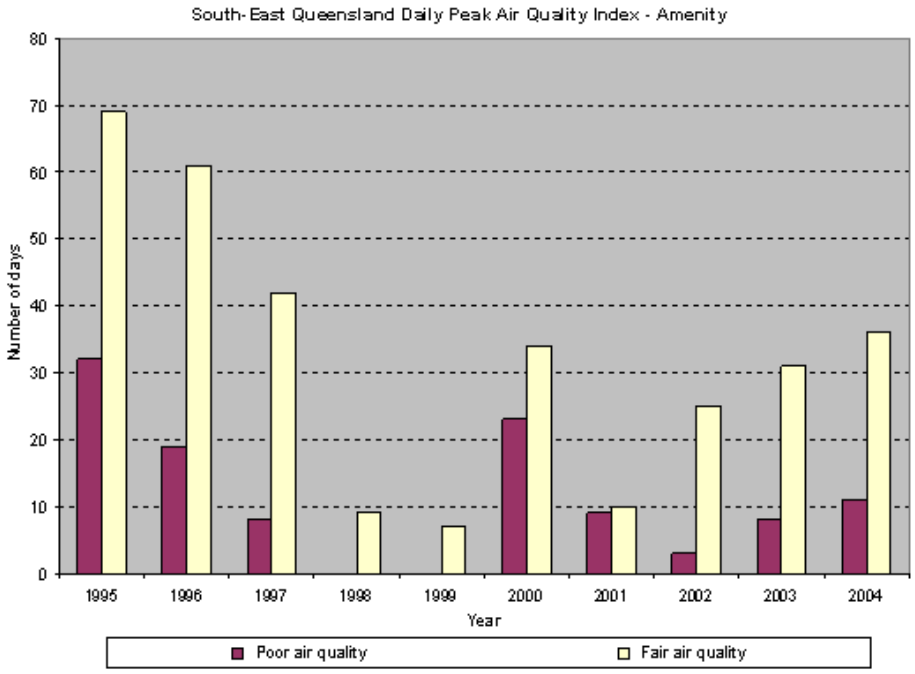


NE02.1 SEQ daily peak air quality index (human health) annual frequency distribution. Date range: 1/01/1995 - 31/12/2004

Air Index Amenity

Number of days each year when daily peak air quality index (based on standards developed to protect visual amenity) measured at EPA Air NEPM air monitoring sites in South East Queensland were in poor/fair/good index ranges.

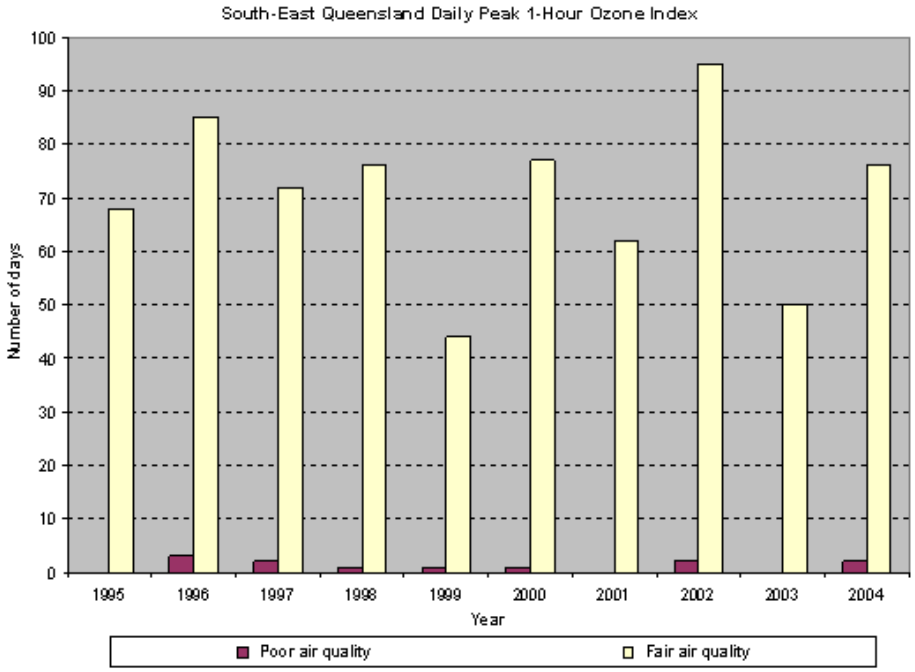
The standard used to derive the index was: visibility equal to or exceeding 20 kilometres (1-hour average).



NE02.2 SEQ daily peak air quality index (amenity) annual frequency distribution. Date range: 1/01/1995 - 31/12/2004

Ozone - daily peak 1 hour average

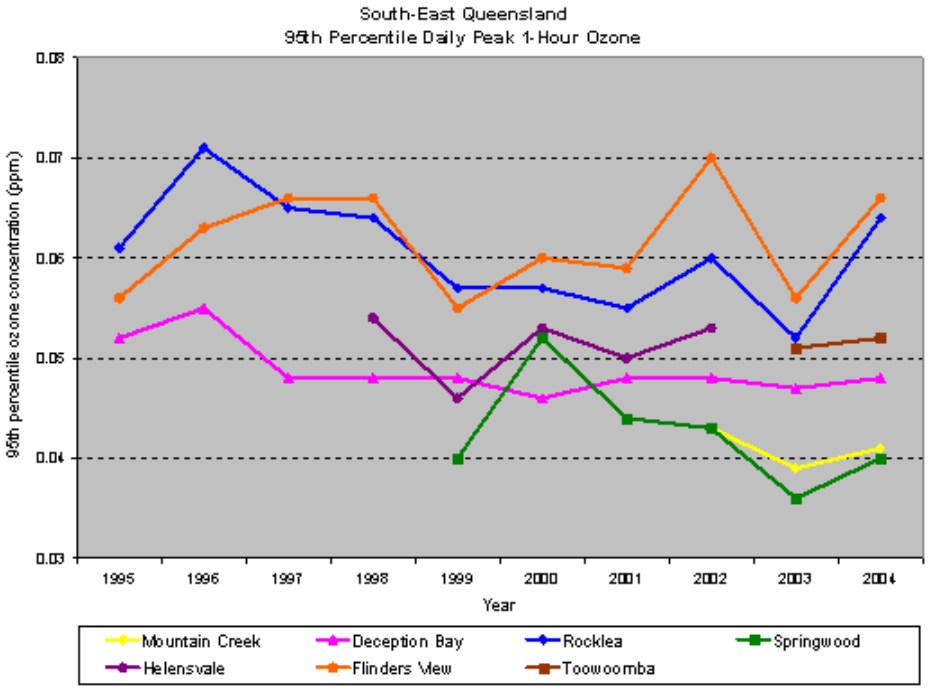
Number of days each year when daily peak 1-hour average ozone concentrations measured at EPA Air NEPM air monitoring sites in SEQ were in poor/fair/good index ranges.



NE02.3 SEQ daily peak 1-hour average ozone index annual frequency distribution. Date range: 1/01/1995 - 31/12/2004

Ozone - 95th percentile daily peak 1 hour

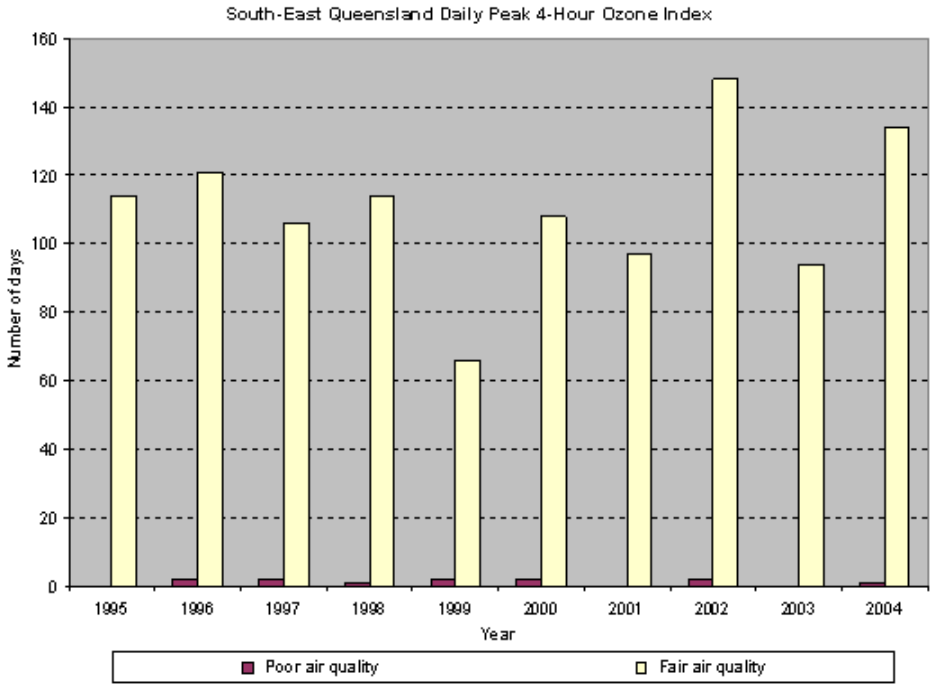
This indicator reports the 95th percentile of daily peak 1-hour average ozone concentrations in SEQ for a calendar year, which corresponds to the 18th highest daily peak 1-hour average ozone concentration during the year (if there is 100 % data availability). Percentile statistics provide information on the frequency distribution of air pollutant concentrations (e.g. 95 % of all measured concentrations lie below the 95th percentile concentration).



NE02.4 SEQ 95th percentile daily peak 1-hour average ozone concentrations. Date range: 1/01/1995 - 31/12/2004

Ozone daily peak 4-hour average

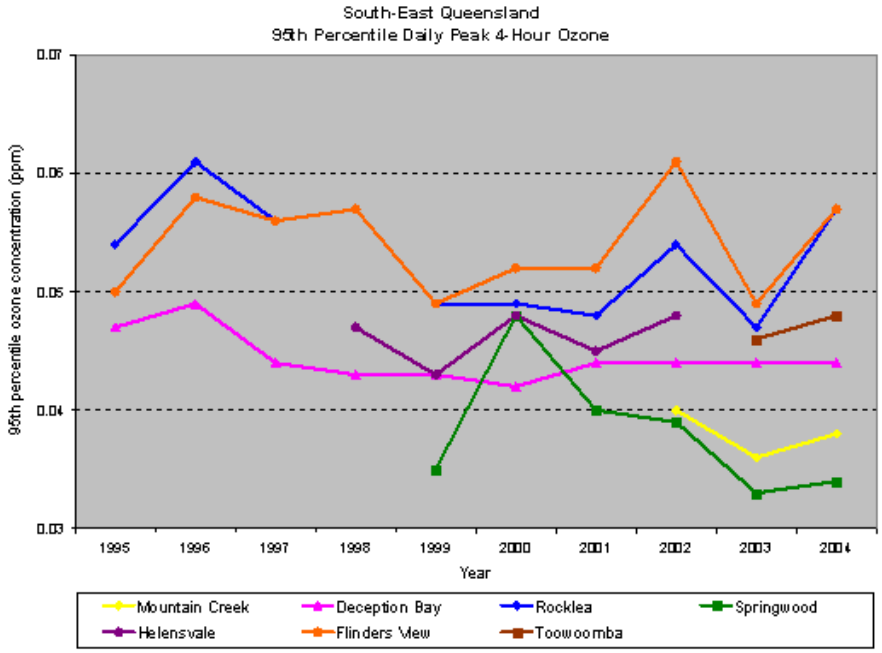
Number of days each year when daily peak 4-hour average ozone concentrations measured at EPA Air NEPM air monitoring sites in SEQ were in poor/fair/good index ranges.



NE02.5 SEQ daily peak 4-hour average ozone index annual frequency distribution. Date range: 1/01/1995 - 31/12/2004

Ozone 95th percentile daily peak

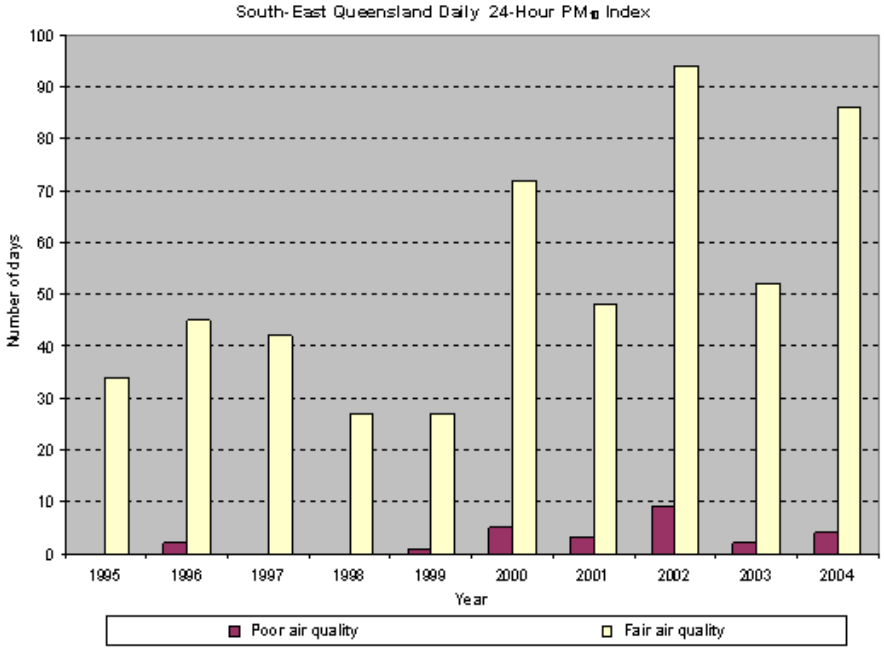
This indicator reports 95th percentile daily peak 4-hour average ozone concentrations in SEQ for a calendar year, which corresponds to the 18th highest daily peak 4-hour average ozone concentration during the year (if there is 100 % data availability). Percentile statistics provide information on the frequency distribution of air pollutant concentrations (e.g. 95 % of all measured concentrations lie below the 95th percentile concentration).



NE02.6 SEQ 95th percentile daily peak 4-hour average ozone concentrations. Date range: 1/01/1995 - 31/12/2004

Particulate Matter - daily 24-hour average PM10

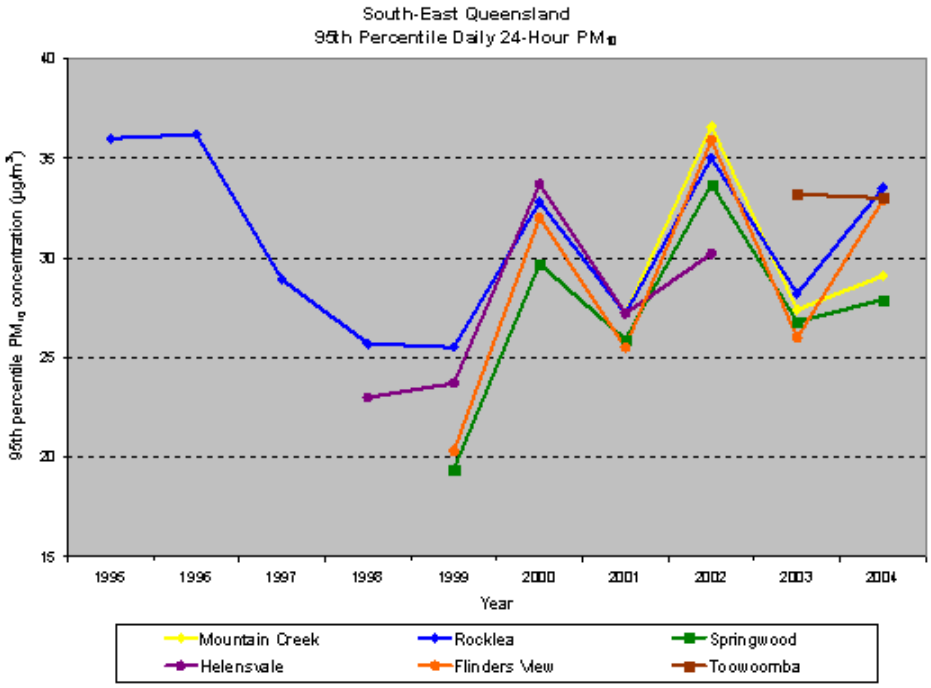
Number of days each year when daily 24-hour average PM10 concentrations measured at EPA Air NEPM air monitoring sites in SEQ were in poor/fair/good index ranges.



NE02.7 SEQ daily 24-hour average PM10 index annual frequency distribution. Date range: 1/01/1995 - 31/12/2004

Particulate matter - 95th percentile daily 24-hour average PM10

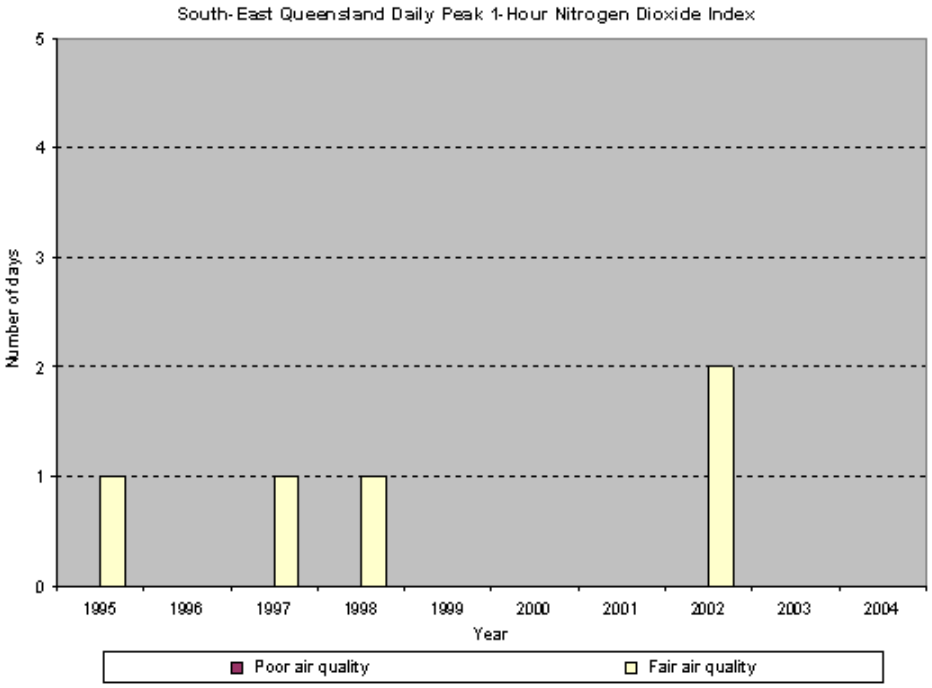
This indicator reports 95th percentile daily 24-hour average PM10 concentrations (concentration of air particles less than 10 µm in diameter) in SEQ for a calendar year, which corresponds to the 18th highest daily 24-hour average PM10 concentration during the year (if there is 100 % data availability). Percentile statistics provide information on the frequency distribution of air pollutant concentrations (e.g. 95 % of all measured concentrations lie below the 95th percentile concentration).



NE02.8 SEQ 95th percentile daily 24-hour average PM10 concentrations. Date range: 1/01/1995 - 31/12/2004

Nitrogen dioxide - daily peak 1-hour average

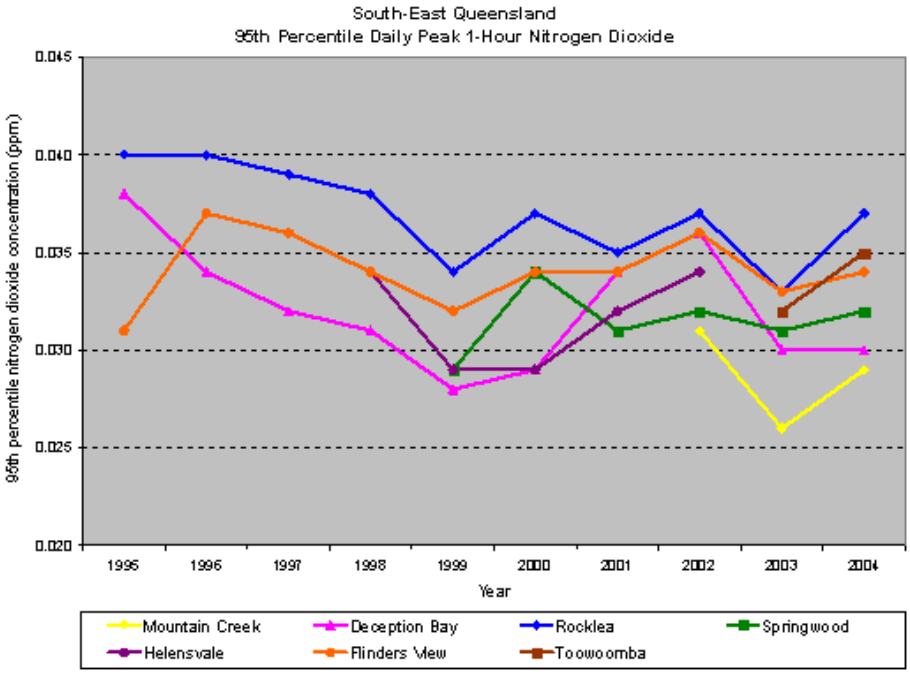
Number of days each year when daily peak 1-hour average nitrogen dioxide concentrations measured at EPA Air NEPM air monitoring sites in SEQ were in poor/fair/good index ranges.



NE02.9 SEQ daily peak 1-hour average nitrogen dioxide index annual frequency distribution. Date range: 1/01/1995 - 31/12/2004

Nitrogen dioxide - 95th percentile daily peak 1-hour average

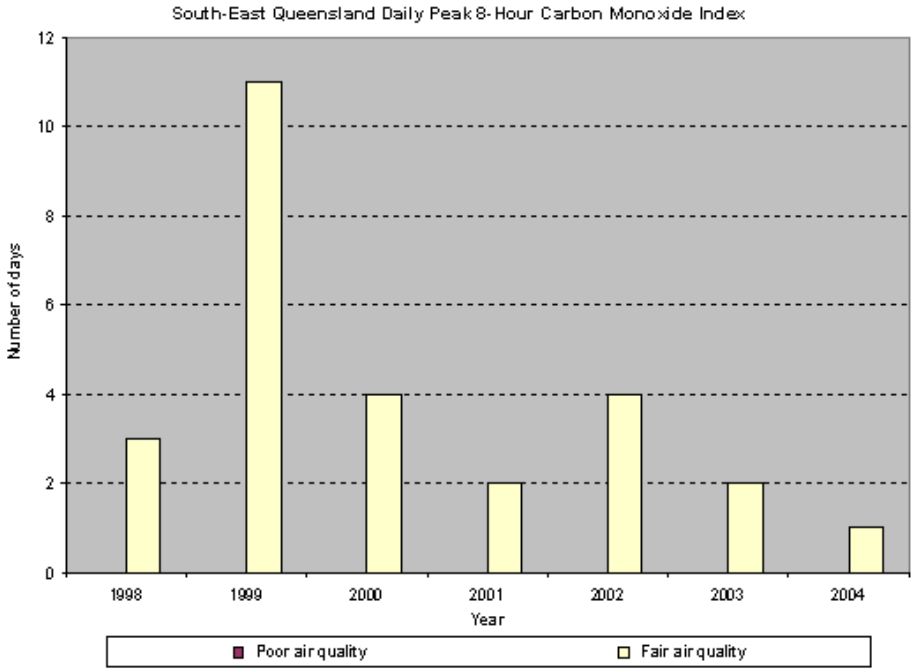
This indicator reports 95th percentile daily peak 1-hour average nitrogen dioxide concentrations in SEQ for a calendar year, which corresponds to the 18th highest daily peak 1-hour average nitrogen dioxide concentration during the year (if there is 100 % data availability). Percentile statistics provide information on the frequency distribution of air pollutant concentrations (e.g. 95 % of all measured concentrations lie below the 95th percentile concentration).



NE02.10 SEQ 95th percentile daily peak 1-hour average nitrogen dioxide concentrations. Date range: 1/01/1995 - 31/12/2004

Carbon Monoxide - daily peak 8-hour average

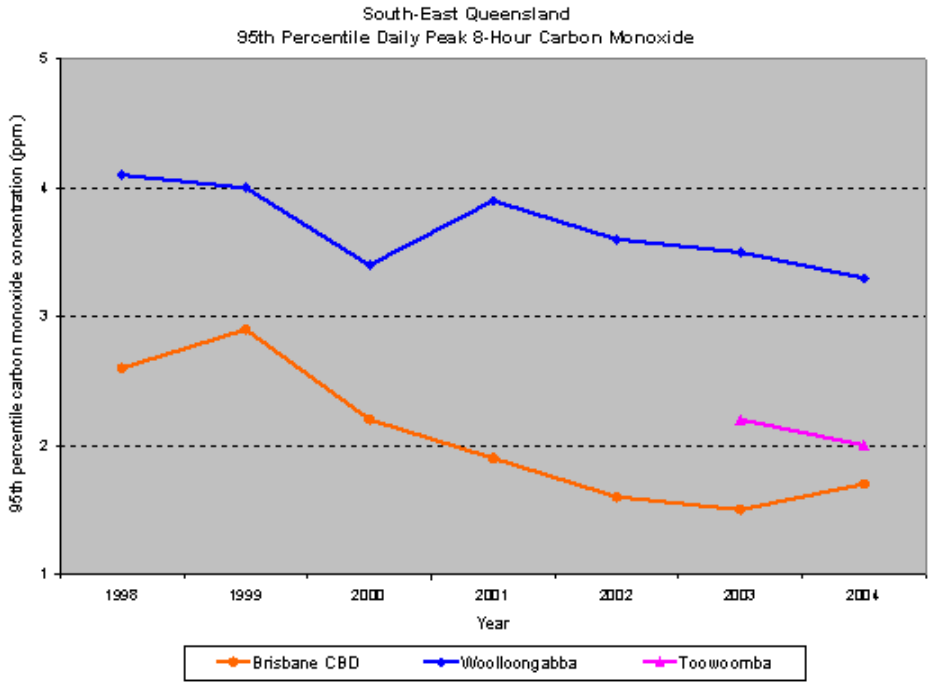
Number of days each year when daily peak 8-hour average carbon monoxide concentrations measured at EPA Air NEPM air monitoring sites in SEQ were in poor/fair/good index ranges.



NE02.11 SEQ daily peak 8-hour average carbon monoxide index annual frequency distribution. Date range: 1/01/1998 - 31/12/2004

Carbon Monoxide - 95th percentile daily peak 8-hour average

This indicator reports 95th percentile daily peak 8-hour average carbon monoxide concentrations in SEQ for a calendar year, which corresponds to the 18th highest daily peak 8-hour average carbon monoxide concentration during the year (if there is 100 % data availability). Percentile statistics provide information on the frequency distribution of air pollutant concentrations (e.g. 95 % of all measured concentrations lie below the 95th percentile concentration).



NE02.12 SEQ 95th percentile daily peak 8-hour average carbon monoxide concentrations. Date range: 1/01/1998 - 31/12/2004

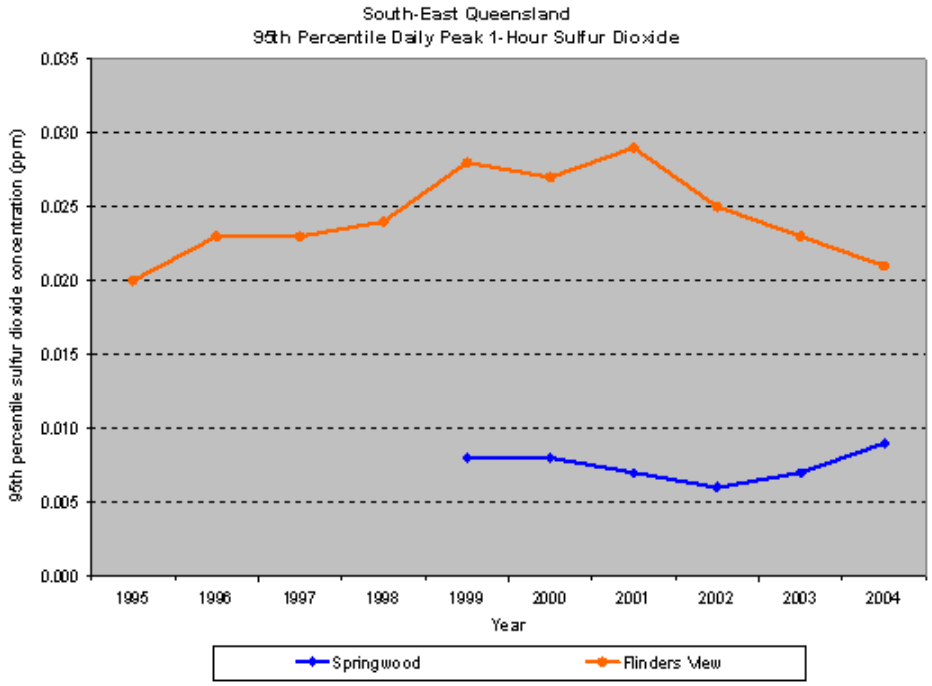
Sulfur dioxide - daily peak 1-hour average

Number of days each year when daily peak 1-hour average sulfur dioxide concentrations measured at EPA Air NEPM air monitoring sites in SEQ were in poor/fair/good index ranges.

NE02.13 SEQ daily peak 1-hour average sulfur dioxide index annual frequency distribution. Date range: 1/01/1995 - 31/12/2004

Sulfur dioxide - 95th percentile daily peak 1-hour average

This indicator reports 95th percentile daily peak 1-hour average sulfur dioxide concentrations in SEQ for a calendar year, which corresponds to the 18th highest daily peak 1-hour average sulfur dioxide concentration during the year (if there is 100 % data availability). Percentile statistics provide information on the frequency distribution of air pollutant concentrations (e.g. 95 % of all measured concentrations lie below the 95th percentile concentration).



NE02.14 SEQ 95th percentile daily peak 1-hour average sulfur dioxide concentrations. Date range: 1/01/1995 - 31/12/2004

Related links

Air quality in South East Queensland

http://www.epa.qld.gov.au/environmental_management/air/air_quality_in_south_east_queensland/

SEQ NE04 Terrestrial protected areas in South East Queensland

Area and proportion of EPA estate and Nature Refuges in South East Queensland by Local Government Authority

State of Environment Theme: Biodiversity

Results

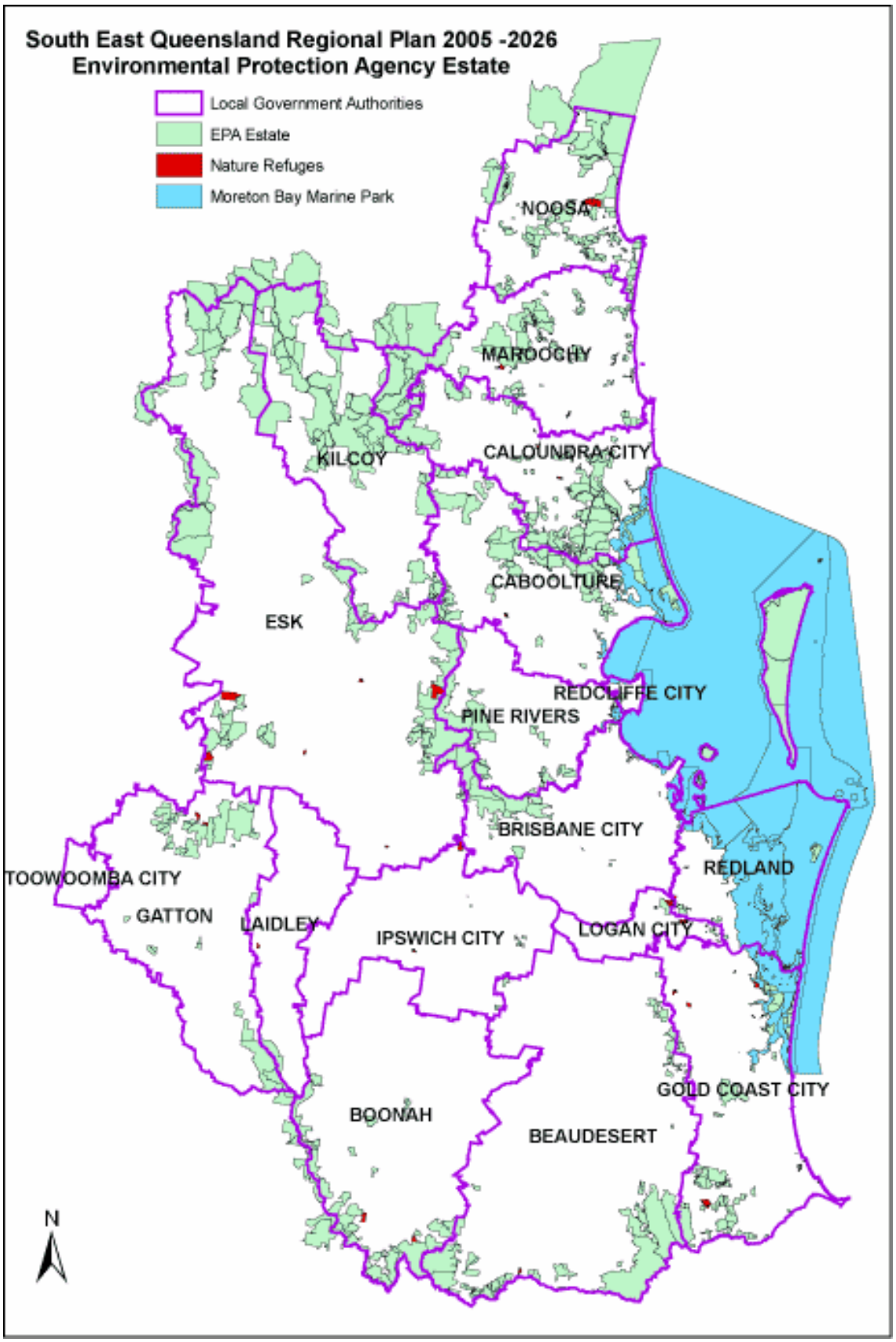
The central strategy for conserving biodiversity is through the establishment of a 'comprehensive', 'adequate' and 'representative' protected area system in conjunction with conservation measures on other lands. In Queensland, and now Australia wide, consolidation of the protected area system is planned within a bioregional context to ensure that all regional ecosystems, those on productive lands and those on marginal lands, the spectacular and the less attractive landscapes alike, are sampled and conserved. In addition other key values such as rare and threatened species and ecosystems are taken into account.

The principal method for determining the completeness or 'comprehensiveness' of the protected area system in sampling biodiversity is the level of representation of regional ecosystems in protected areas in each bioregion. Increasingly, regional ecosystems have been used as the surrogate for planning the protection of biodiversity. The current status of Queensland's protected area system in these terms identifies that approximately 70 % of the State's regional ecosystems are represented in protected areas greater than 1000 ha in size across all 13 bioregions.

In the SEQ Bioregion (which is larger than the area covered by the SEQ Regional Plan), approximately 86 % of the associated regional ecosystems are represented in protected areas greater than 1000 ha in size. Thus the SEQ bioregion has one of the highest levels of biodiversity protection in this State, as over 50 % of the regional ecosystems are represented in more than 1 Protected Area. The finalisation of the SEQ Forest Transfer program is expected to improve the level of biodiversity protection even further.

Nature Refuges are a category of protected area, but are different from a National Park in that the land continues to be privately owned and managed. A Conservation Agreement records a multiple use management regime that gives equal emphasis to conservation and other uses on the Nature Refuge.

Nature Refuges provide an excellent opportunity to augment the representation of regional ecosystems in the Protected Area Estate, as well as provide protection for rare, endangered and vulnerable species. Nature Refuges may also provide valuable corridors in the landscape, or complement the management of adjoining Protected Areas. At present 31 of the 182 Nature Refuges in Queensland are located in the SEQ Region, demonstrating the willingness of private landholders to contribute to the protection of biodiversity in the region.



NE04.1 EPA estate in South East Queensland. Date range: 1/06/1984 - 30/06/2005

LGA	Area of EPA Estate (ha)	Total area of LGA (ha)	Proportion of LGA (%)
Beaudesert Shire	31 623	284 752	11
Boonah Shire	18 475	191 723	9
Brisbane City	28 972	137 833	21
Caboolture Shire	25 670	125 590	20
Caloundra City	28 962	112 539	25
Esk Shire	59 615	392 990	15
Gatton Shire	17 679	156 819	11
Gold Coast City	13 182	144 959	9
Ipswich City	469	120 112	0.4
Kilcoy Shire	52 167	143 938	36
Laidley Shire	1 318	69 927	1
Logan City	646	24 949	2
Maroochy Shire	30 221	115 901	26
Noosa Shire	26 130	86 959	30
Pine Rivers Shire	10 662	77 252	13
Redcliffe City	131	4 107	3
Redland Shire	1 306	90 712	1
Toowoomba City	0	11 654	0
Total	**347 228**	**2 292 716**	**15**

NE04.2 Proportion of EPA Estate within South East Queensland by LGA. Date range: 8/11/2005 - 8/11/2005

LGA	Number of Nature Refuges / Coordinated Conservation Areas	Total area (ha)
Beaudesert Shire	1/0	71
Boonah Shire	2/0	240
Brisbane City	1/0	5
Caboolture Shire	1/0	42
Caloundra City	4/0	91
Crows Nest	1/0	39
Esk Shire	6/0	1435
Gatton Shire	2/0	158
Gold Coast City	4/0	436
Ipswich City	2/0	263
Laidley Shire	1/0	42
Logan City	1/1	132/661
Maroochy Shire	1/0	100
Noosa Shire	2/0	490
Redland Shire	2/1	19/519

NE04.3 Nature Refuges and Coordinated Conservation Areas in South East Queensland by LGA. Date range: 8/11/2005 - 8/11/2005

Related links

EPA/QPWS - Parks and Forests

http://www.epa.qld.gov.au/parks_and_forests/

SEQ NE05 Marine protected areas

The extent of marine and estuarine protected areas in South East Queensland

State of Environment Theme: Biodiversity

Results

Protected Areas

Marine parks are established over tidal lands and waters to protect and conserve special areas while allowing for the planned use of marine resources. Multiple-use management allows for many different activities in marine parks, with zoning plans used to determine activities that can occur within each area. EPA manages an area in excess of 68,000 km^2 of State marine parks and assists with day-to-day management of more than 345,000 km^2 of the Great Barrier Reef Marine Park.

Marine parks protect a range of habitats including mangrove wetlands, seagrass beds, mudflats, sandbanks, beaches, rocky outcrops and fringing reefs. Marine park boundaries can be established in waters up to the highest astronomical tide. They include the tidal water and land, subsoil and airspace above the boundaries. The plants and animals within the boundary are also part of the marine park.

Zoning plan information guides show the different zones by using colours on zoning plan maps. Activities tables show what you can and can't do in a particular zone; however, most zones allow a wide range of uses, including fishing and boating. Certain activities are prohibited in only a few zones, however the potential effect of illegal activities (e.g. illegal fishing, hunting and netting) adversely affecting populations of marine wildlife is of concern.

Natural factors such as predators, weather events and disease cause marine wildlife deaths, however increased human activities may also threaten survival of populations. Increased boating and shipping create hazards as vessels may kill or injure marine wildlife, scare them from their feeding areas and disrupt social bonds in populations. Commercial fishing, particularly trawling, is a threat to animals such as turtles, dolphins and dugong that may be caught in trawl nets and drown.

The clearing of land, dumping of dredge wastes, discharge of silt from coastal rivers and trawling can increase the amount of silt in sea water, affecting seagrass meadows that support species such as dugong. Seagrass also provides habitat for prawns and many commercial fish species. Many areas of seagrass in marine parks have been identified and restrictions on trawling, dredging and spoil dumping implemented.

The dumping of rubbish is prohibited inside marine parks, but increasing amounts of debris, such as plastic objects and fishing line, enter the marine environment every year causing entanglement and ingestion by marine wildlife.

Moreton Bay is a RAMSAR wetland. This means it is included in the List of Wetlands of International Importance on the basis of their ecological, botanical, zoological, limnological or hydrological importance.

Moreton Bay is a semi-enclosed basin bounded on its eastern side by two of the largest sand islands in the world. It is one of only three extensive intertidal areas of seagrass, mangroves and saltmarsh on the eastern coast of Australia that provide habitat for water birds.

Moreton Bay plays a substantial role in the natural functioning of a major coastal system through its protection from oceanic swells providing habitat for wetland development, receiving and channelling the flow of all rivers and creeks east of the Great Dividing Range from the McPherson Range in the south to the north of the D'Aguilar Range.

Moreton Bay supports over 355 species of marine invertebrates, at least 43 species of shorebirds, 55 species of algae associated with mangroves, seven species of mangrove and seven species of seagrass.

Moreton Bay supports appreciable numbers of the vulnerable green and hawksbill turtles, the endangered loggerhead turtle and is ranked among the top ten dugong habitats in Queensland.

Moreton Bay supports more than 50,000 wintering and staging shorebirds during the non-breeding season. At least 43 species of shorebirds use intertidal habitats in the Bay, including 30 migratory species listed in agreements for the protection of migratory birds between Australia and Japan and China (JAMBA and CAMBA). The Bay is particularly significant for the population of wintering Eastern curlews (3,000 to 5,000) and the Grey-tailed tattler (more than 10,000), both substantially more than 1 % of the known Flyway population.

LGA	Marine Park	Area (ha)
Brisbane City Council	Moreton Bay Marine Park	2063
Caboolture Shire	Moreton Bay Marine Park	1544
Caloundra City Council	Moreton Bay Marine Park	186
Gold Coast City Council	Moreton Bay Marine Park	730
Pine Rivers Shire	Moreton Bay Marine Park	1376
Redcliffe City Council	Moreton Bay Marine Park	1501
Redlands Shire	Moreton Bay Marine Park	2268
Total		**9668**

NE05.1 Marine Protected Areas. Date range: 1/07/2006 - 1/10/2006

Related links

EPA - Moreton Bay Marine Park

http://www.epa.qld.gov.au/parks_and_forests/marine_parks/moreton_bay/

SEQ NE07 Extinct, endangered and vulnerable species and ecological communities

Number of taxa listed as extinct in the wild, endangered or vulnerable under the Nature Conservation (Wildlife) Regulation 1994

State of Environment Theme: Biodiversity

Results

The SEQ region has 163 taxa listed as threatened with three taxa list as extinct in the wild, 58 taxa listed as endangered and 103 taxa listed as vulnerable under the *Nature Conservation (Wildlife) Regulation 1994*. NE07.1 lists the number of extinct in the wild, endangered and vulnerable taxa for each of the local government areas in SEQ.

Extinct, endangered and vulnerable species in South East Queensland[a]

Local Government Area	Extinct in the wild	Endangered	Vulnerable	Total
Beaudesert Shire Council	1	19	39	59
Boonah Shire Council	1	10	27	38
Brisbane City Council	1	13	34	48
Caboolture Shire Council	0	11	24	35
Caloundra City Council	0	18	32	50
Esk Shire Council	1	8	19	28
Gatton Shire Council	1	6	22	29
Gold Coast City Council	0	23	49	72
Ipswich City Council	2	3	14	19
Kilcoy Shire Council	0	7	11	18
Laidley Shire Council	0	3	9	12
Logan City Council	0	2	7	9
Maroochy Shire Council	0	23	28	51
Noosa Shire Council	0	12	34	46
Pine Rivers Shire Council	0	6	15	21
Redcliffe City Council	0	1	4	5
Redland Shire Council	0	8	23	31
Toowoomba City	0	1	7	8
SEQ Region	**3**	**58**	**103**	**164**

[a] Taxa listed as extinct in the wild, endangered or vulnerable under the *Nature Conservation (Wildlife) Regulation 1994*

NE07.1 Number of taxa listed as extinct in the wild, endangered or vulnerable under the Nature Conservation (Wildlife) Regulation 1994 in South East Queensland. Date range: 1/01/1867 - 14/02/2005

Related links

EPA/QPWS - Threatened plants and animals

http://www.epa.qld.gov.au/nature_conservation/wildlife/threatened_plants_and_animals/

SEQ NE08 Extent of regional ecosystems

The extent of remnant regional ecosystem in local government areas

State of Environment Theme: Biodiversity

Results

Analysis of 2003 Remnant Vegetation in the 18 Local Government Areas (LGA) in SEQ

This document provides regional ecosystems information and statistics for the SEQ 18 Local Government Areas (LGAs), see NE08.1 and NE08.2 above. This information is based on the best available regional scale mapping (1:50,000 and 1:100,000 scales) *Regional Ecosystems of Queensland Version 5.0*. This information was generated by the Queensland Herbarium's vegetation and regional ecosystem survey and mapping program. Areas of non-remnant vegetation, e.g. young regrowth or heavily disturbed vegetation, are not included.

The extant of remnant regional ecosystems and their biodiversity status is a good measurable environmental indicator. The Queensland Herbarium updates the extant of remnant regional ecosystems in Queensland every two years.

Definitions

Remnant vegetation is defined as vegetation mapped as remnant on a regional ecosystem or remnant vegetation map. For woody vegetation to be mapped as remnant the dominant canopy must have > 70 % of the height and > 50 % of the cover relative to the undisturbed height and cover of that stratum and is dominated by species characteristic of the vegetation's undisturbed canopy. This definition includes all woody structural formations as well as those dominated by shrubs, grasses and other life forms (Neldner et al. 2005).

Regional Ecosystem Maps

The EPA has developed a web site where you can download a copy of a certified Regional Ecosystem Map (http://www.epa.qld.gov.au/REMAP). This website enables you to select an area of interest and obtain a Regional Ecosystem Map (REMAP) in Adobe Portable Document Format (PDF) that can be e-mailed to a valid e-mail address.

Regional Ecosystem Data

The EPA has developed a web site where you can obtain digital Regional Ecosystem Data of the 2003 regional ecosystems (RE) for a specified area defined by Lot on Plan (http://www.epa.qld.gov.au/REDATA). The data is distributed as ESRI shapefile format for up to three Lot on Plans at a time. Current certified map amendments overlying the area are included, if applicable. Regional eocsystem data for larger areas are available on request by contacting regional.ecosystem@epa.qld.gov.au. Charges may apply.

Regional Ecosystems Biodiversity Status

The Regional Ecosystem Description Database (http://www.epa.qld.gov.au/nature_conservation/biodiversity/regional_ecosystems/) lists the status of regional ecosystems as gazetted under the *Vegetation Management Act 1999* (their Vegetation Management Status) and their Biodiversity Status as recognised by the Environmental Protection Agency. The Biodiversity Status is defined by the Environmental Protection Agency and is based on an assessment of the condition of remnant vegetation in addition to the pre-clearing and remnant extent of a regional ecosystem. The specific criteria used to assess the Vegetation *Management Act 1999* Status and Biodiversity Status of regional ecosystems are given below.

Endangered

A regional ecosystem is listed as endangered under the *Vegetation Management Act 1999* if remnant vegetation is less than 10 % of its pre-clearing extent across the bioregion, or 10-30 % of its pre-clearing extent remains and the remnant vegetation is less than 10 000 ha.

In addition to the criteria listed for an endangered regional ecosystems under the *Vegetation Management Act 1999*, for biodiversity planning purposes the Environmental Protection Agency also classifies a regional ecosystem as endangered if less than 10 % of its pre-clearing extent remains unaffected by severe degradation and/or biodiversity loss; or 10-30 % of its pre-clearing extent remains unaffected by severe degradation and/or biodiversity loss and the remnant vegetation is less than 10,000 ha; or it is a rare regional ecosystem subject to a threatening process.

Of concern

A regional ecosystem is listed as of concern under the *Vegetation Management Act 1999* if remnant vegetation is 10-30 % of its pre-clearing extent across the bioregion, or more than 30 % of its pre-clearing extent remains and the remnant extent is less than 10 000 ha.

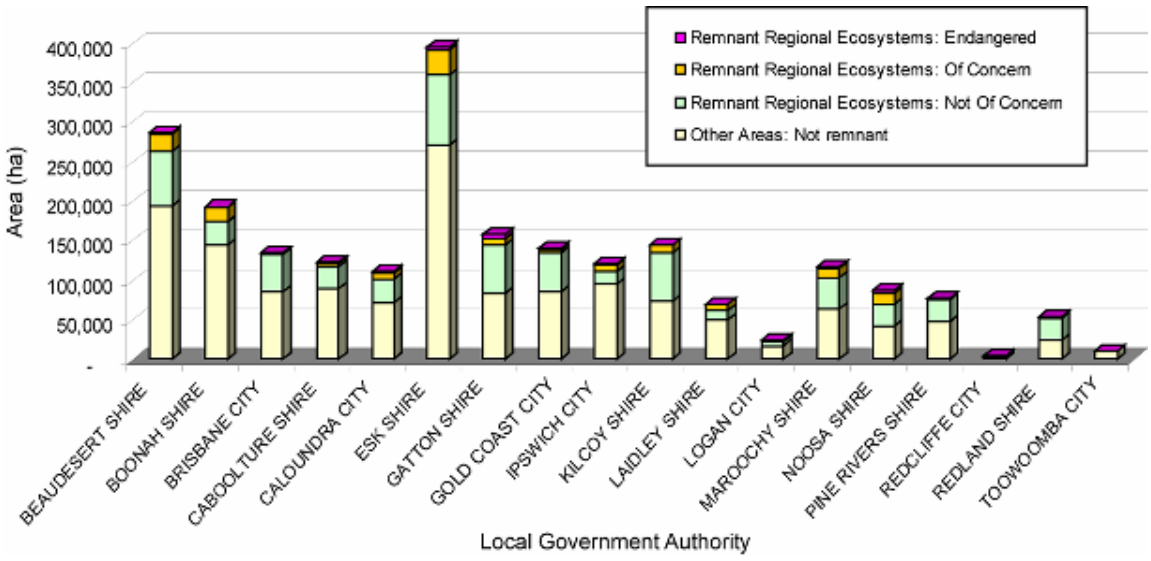
In addition to the criteria listed for an of concern regional ecosystems under the *Vegetation Management Act 1999*, for biodiversity planning purposes the Environmental Protection Agency also classifies a regional ecosystem as of concern if 10-30 % of its pre-clearing extent remains unaffected by moderate degradation and/or biodiversity loss.

Not of concern/No concern at present

A regional ecosystem is listed as not of concern under the *Vegetation Management Act 1999* if remnant vegetation is over 30 % of its pre-clearing extent across the bioregion, and the remnant area is greater than 10 000 ha. In addition to the criteria listed for not of concern regional ecosystems under the *Vegetation Management Act 1999*, for biodiversity planning purposes the Environmental Protection Agency also classifies a regional ecosystem as no concern at present if the degradation criteria listed above for endangered or of concern regional ecosystems are not met.

Area of Regional Ecosystems in South East Queensland (Ha)					
Local Government Authority	**Biodiversity Status**				
	Endangered	**Of Concern**	**Not of Concern**	**Non-remnant**	**Total**
Beaudesert Shire	2816	20,919	68,537	192,288	284,560
Boonah Shire	1711	17,878	29,170	142,894	191,653
Brisbane City	562	1758	47,210	125,903	175,433
Caboolture Shire	2591	4677	27,293	101,839	136,400
Caloundra City	2011	7964	30,153	80,577	120,705
Esk Shire	5224	30,448	89,192	267,535	392,399
Gatton Shire	5307	8419	60,633	82,276	156,635
Gold Coast City	885	5505	47,861	102,831	157,082
Ipswich City	1892	7128	16,213	94,911	120,144
Kilcoy Shire	942	9623	60,342	73,031	143,938
Laidley Shire	808	6995	11,789	50,347	69,939
Logan City	2143	977	4367	17,379	24,866
Maroochy Shire	1573	10,937	41,107	68,415	122,032
Noosa Shire	4463	12,364	29,238	51,497	97,562
Pine Rivers Shire	725	1257	26,595	48,946	77,523
Redcliffe City	18	76	906	9086	10,086
Redland Shire	1712	703	26,724	67,771	96,910
Toowoomba City	282	118	1474	9781	11,655
Total	**35,665**	**147,746**	**618,804**	**1,587,307**	**2,389,522**

NE08.1 ROC Local Governments Area (LGA) analysis by 2003 remnant regional ecosystems and other areas (not remnant - includes cleared, cultivated, built, regrowth etc. areas). Date range: 30/12/2005 - 30/12/2005



NE08.2 ROC Local Governments Area (LGA) analysis by 2003 remnant regional ecosystems and other areas (not remnant - includes cleared, cultivated, built, regrowth etc. areas). Date range: 30/12/2005 - 30/12/2005

Related links

Regional Ecosystem Description Database

http://www.epa.qld.gov.au/nature_conservation/biodiversity/regional_ecosystems/

Regional Ecosystem Maps

http://www.epa.qld.gov.au/REMAP

Regional Ecosystem Data

http://www.epa.qld.gov.au/REDATA

SEQ NE09 Clearing of woody vegetation

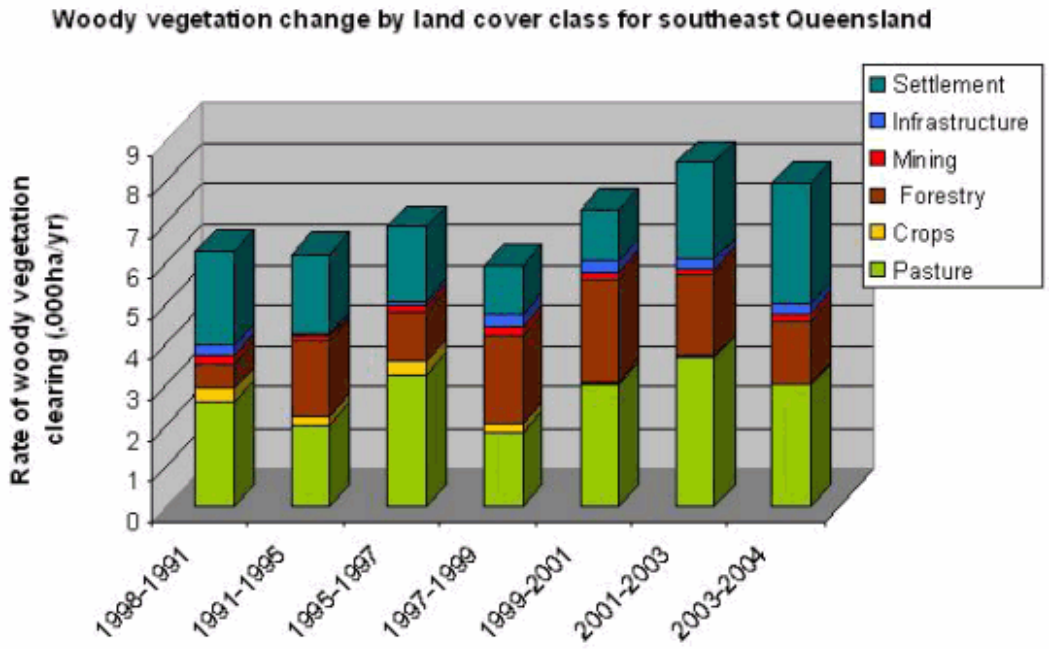
Rate of clearing, in hectares per annum, of terrestrial native vegetation types, by clearing activity.

State of Environment Theme

Biodiversity

Results

For the 16 years from mid-1988 to mid-2004, the average clearing rate for the South East Queensland Regional Plan region was 6860 ha/yr. The trend shows a consistent rate of clearing with an increase in rate since 1999. Since 1988 clearing for pasture and settlement has made up 39 % and 28 % of the total clearing in the region respectively.



NE09.1 Woody vegetation change by land cover for South East Queensland. Date range: 1/08/1988 - 1/08/2004

Related indicators

ANZECC BD 1

Related links

Statewide Landcover and Trees Study (SLATS)

http://www.nrm.qld.gov.au/slats/index.html

SEQ NE10 Invasive pest plants

Invasive pest plants in South East Queensland

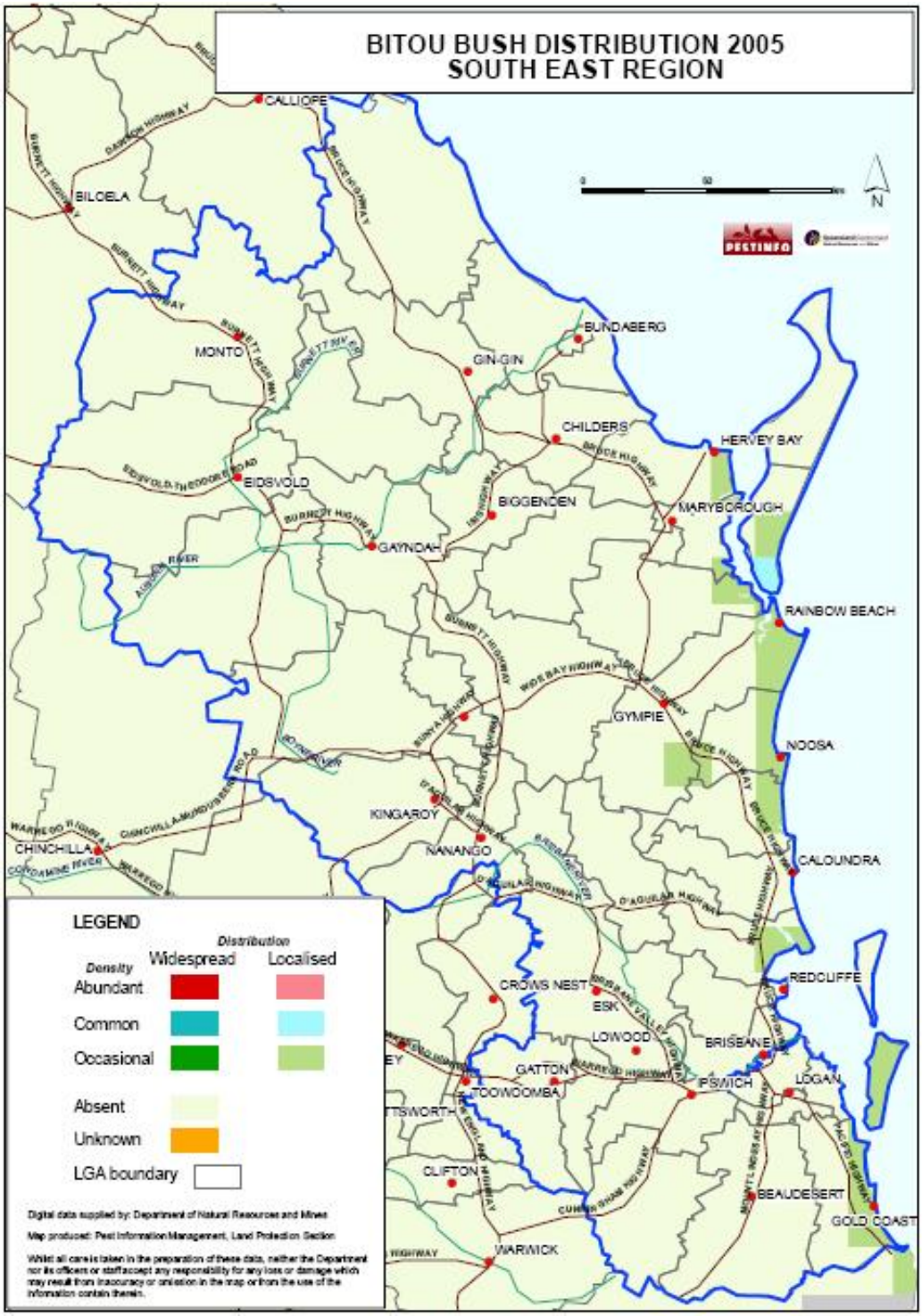
State of Environment Theme: Biodiversity

Results

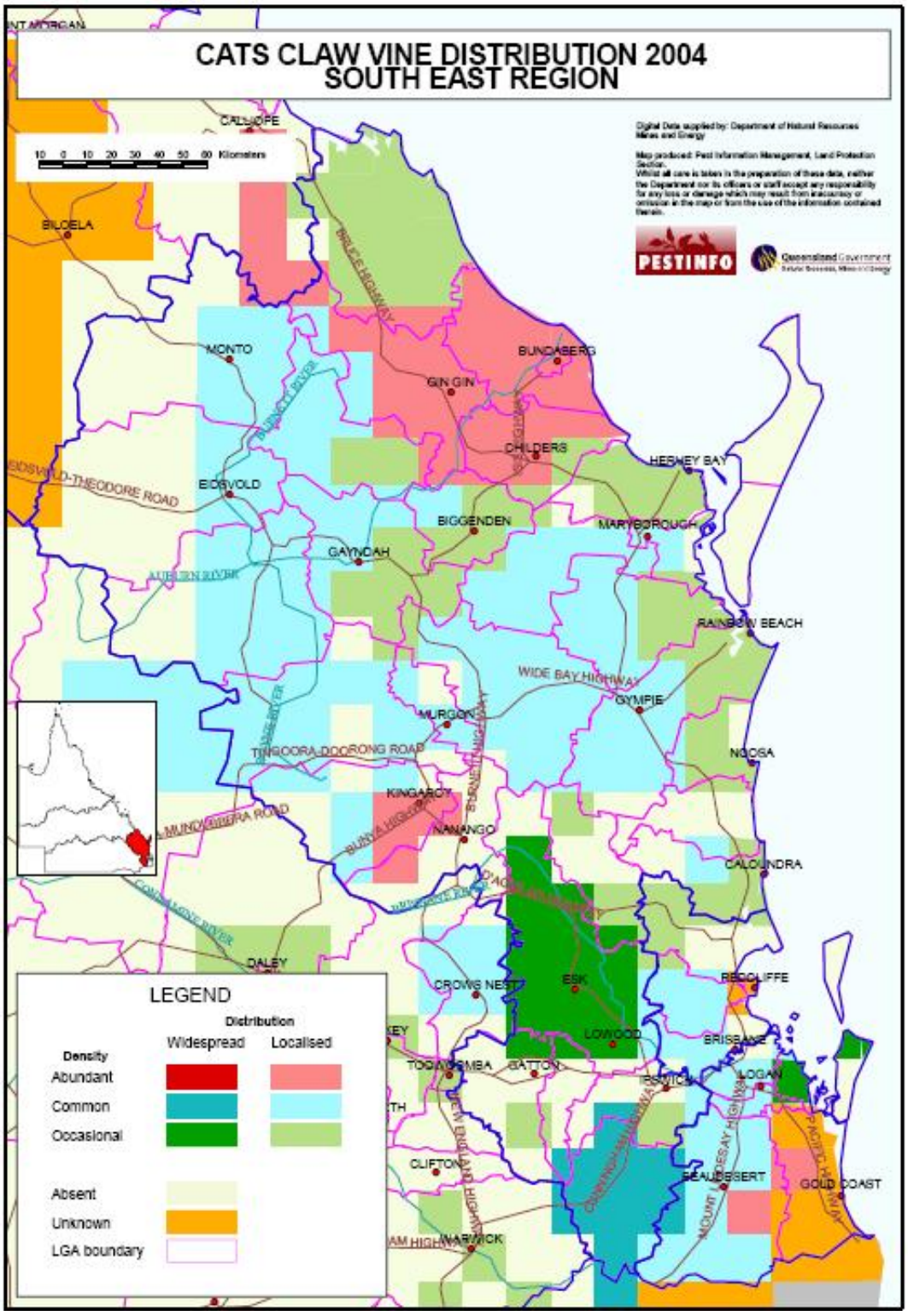
Each year the Department of Natural Resources and Water (NRW) produces a comprehensive series of pest distribution maps from the results of an annual pest distribution survey. Information is collected and species occurrence, density and distribution are mapped for over 40 pest plant and pest animal species. The department is undertaking further developmental work to create secondary products from the data gathered in the survey, such as trend and movement information.

The maps presented highlight three of the pest plants that have an effect on biodiversity within the SEQ region. Bitou Bush is a serious threat to coastal dune biodiversity, Cat's Claw Creeper is widespread within SEQ and perhaps one of the most difficult to control weeds and Water Hyacinth is one of the most prominent aquatic weeds in the SEQ region.

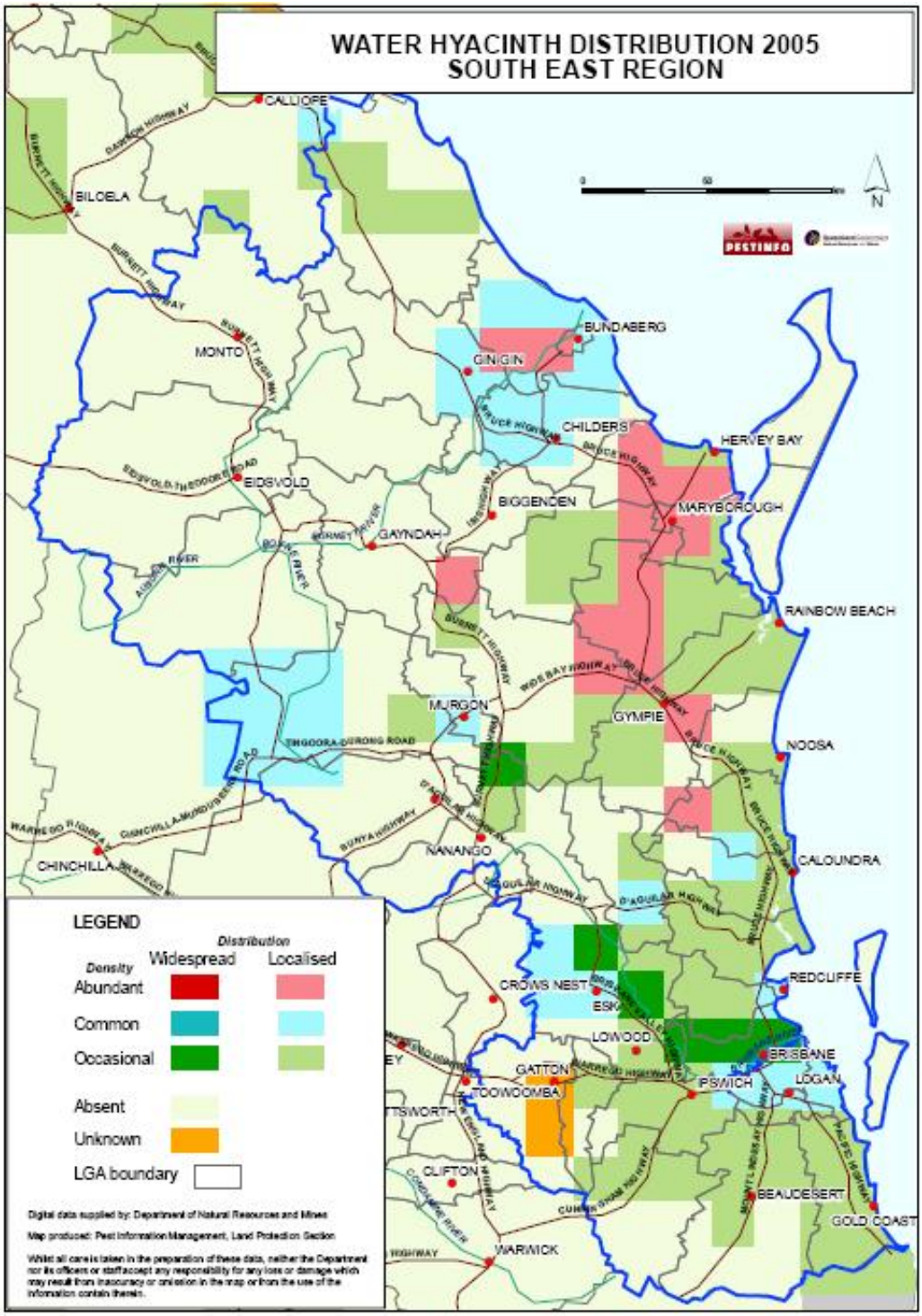
For a comprehensive set of maps on all the pest plants and animals surveyed in the Annual Pest Distribution Survey please visit the Department of Natural Resources and Water Annual Pest Distribution Survey web site http://www.nrm.qld.gov.au/pests/maps/pest_distribution/annual_pest_dist_maps.html.



NE10.1 Bitou Bush Distribution 2005 South East Region. Date range: 1/01/2005 - 31/12/2005



NE10.2 Cats Claw Vine Distribution 2004 South East Region. Date range: 1/01/2004 - 31/12/2004



NE10.3 Water Hyacinth Distribution 2005 South East Region. Date range: 1/01/2005 - 31/12/2005

Related links

NRW - Weeds & pest animals management - Weeds

http://www.nrw.qld.gov.au/pests/weeds/index.html

SEQ NE11 Invasive pest animals

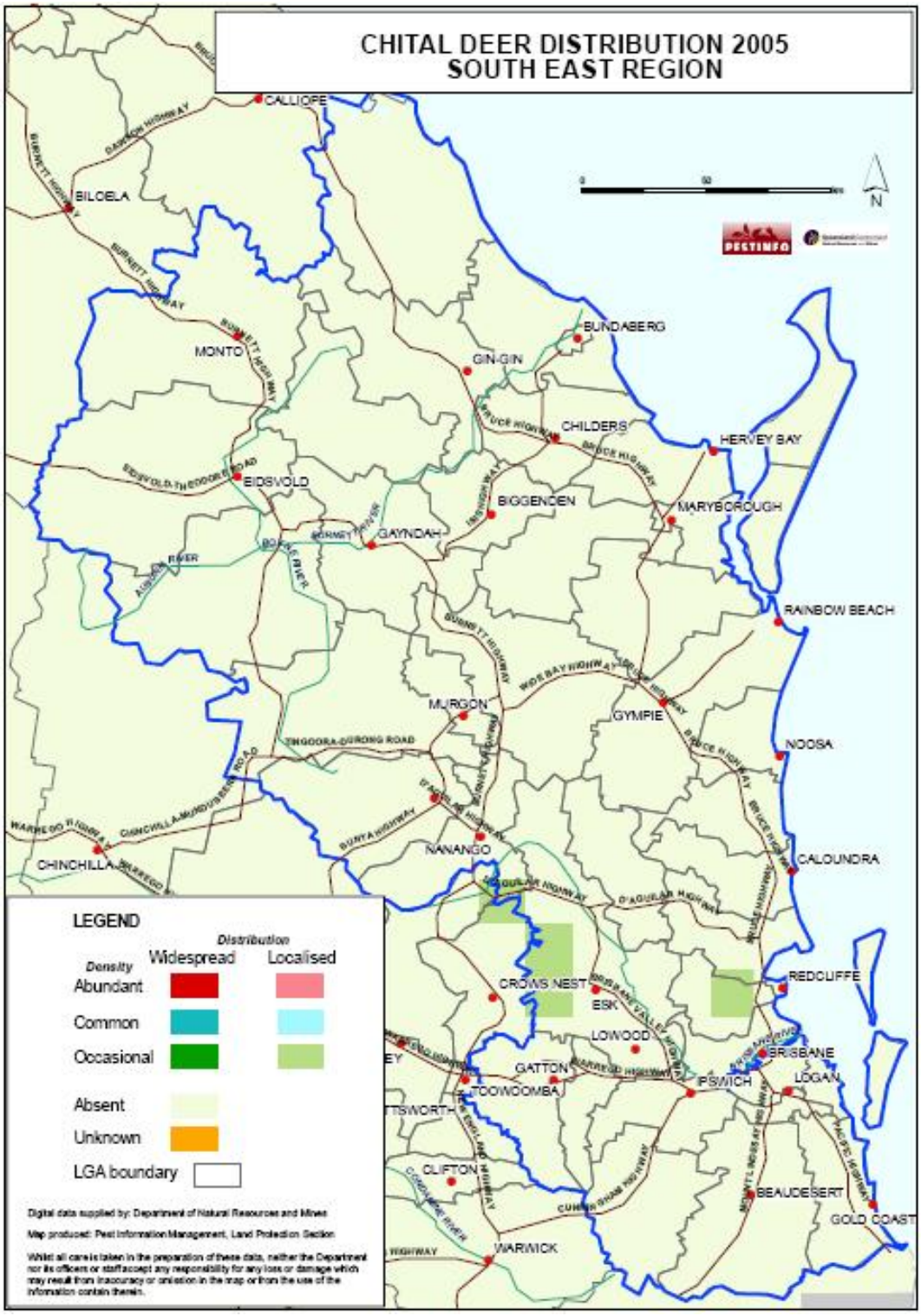
Invasive pest animals in South East Queensland

State of Environment Theme: Biodiversity

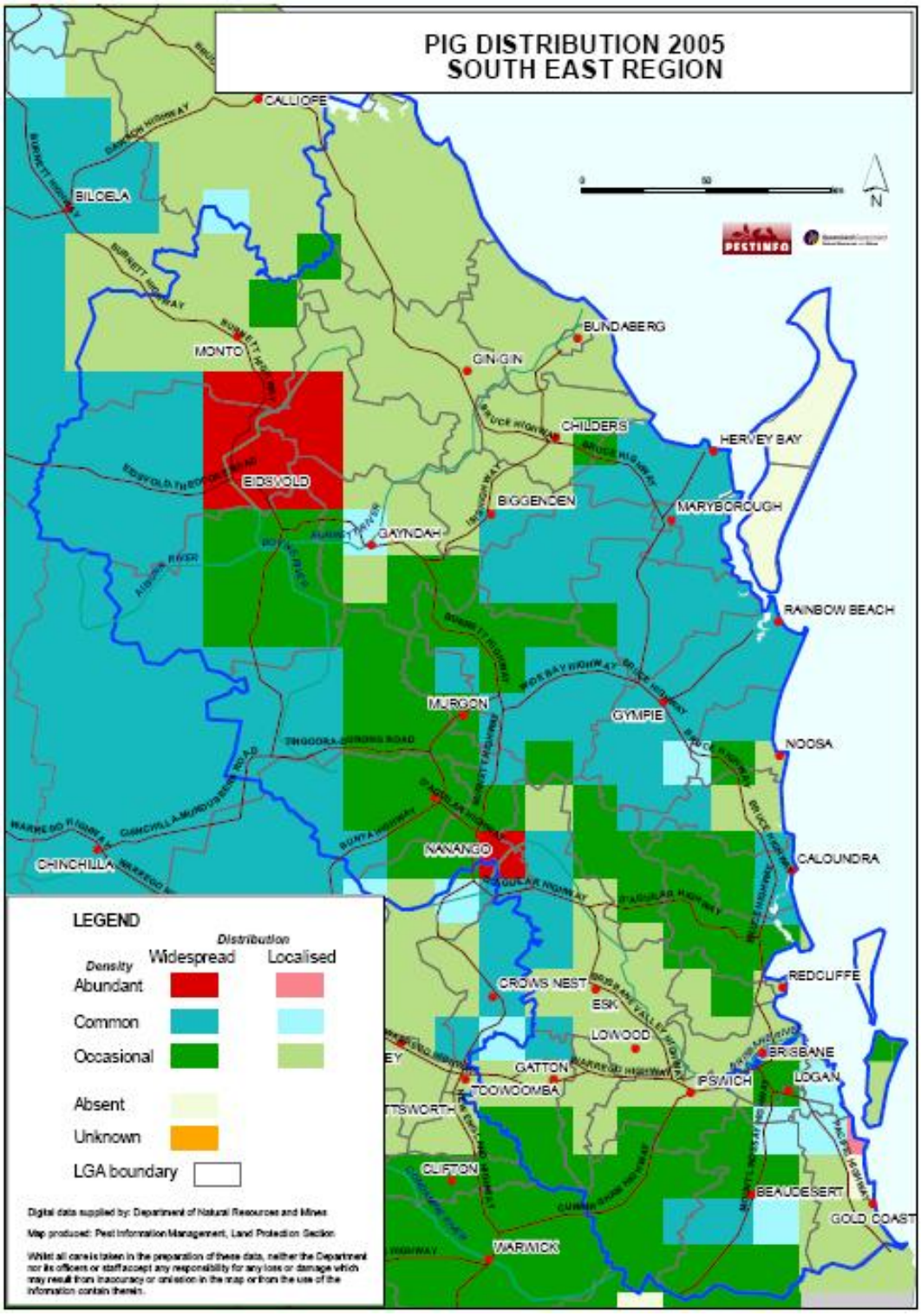
Results

Each year the Department of Natural Resources and Water (NRW) produces a comprehensive series of pest distribution maps from the results of an annual pest distribution survey. Information is collected and species occurrence, density and distribution are mapped for over 40 pest plant and pest animal species. The department is undertaking further developmental work to create secondary products from the data gathered in the survey, such as trend and movement information. The maps highlight 3 of the more prominent pest animals that have an affect or have the potential to affect biodiversity in SEQ. These are the Red-eared slider turtle, an exotic species with the ability to out-compete native turtles; Chital deer, which have an established population near Charters Towers and were not previously known to be in SEQ and feral pigs which are widespread and have serious environmental impacts.

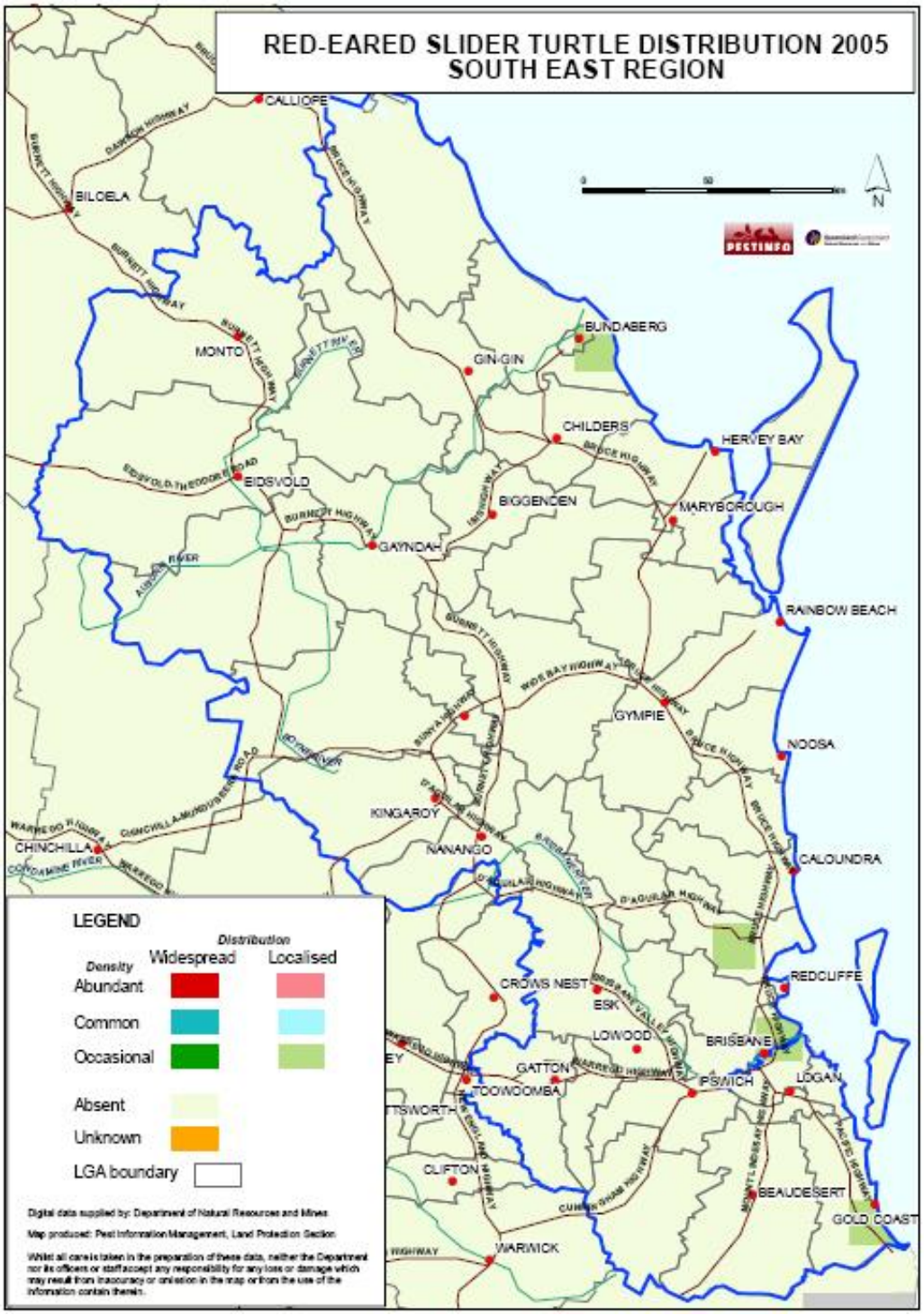
For a comprehensive set of maps on all the pest plants and animals surveyed please visit the Department of Natural Resources and Water Annual Pest Distribution Survey web site
http://www.nrm.qld.gov.au/pests/maps/pest_distribution/annual_pest_dist_maps.html



NE11.1 Chital Deer Distribution 2005 South East Region. Date range: 1/01/2005 - 31/12/2005



NE11.2 Pig Distribution 2005 South East Region. Date range: 1/01/2005 - 31/12/2005



NE11.3 Red-Eared Slider Turtle Distribution 2005 South East Region. Date range: 1/01/2005 - 31/12/2005

Related links

NRW - Weed & pest animal management - Pest Animals

http://www.nrw.qld.gov.au/pests/pest_animals/index.html

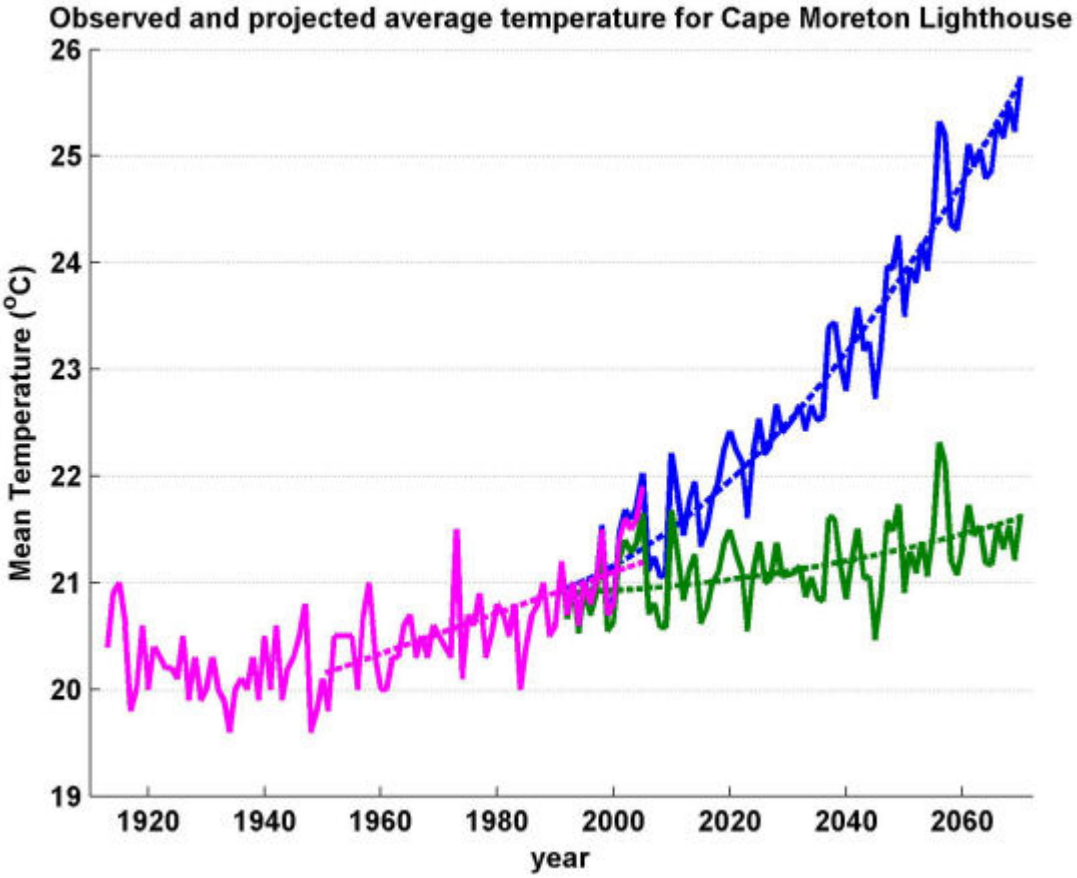
SEQ NE12 Climate change trends

State of Environment Theme: Atmosphere

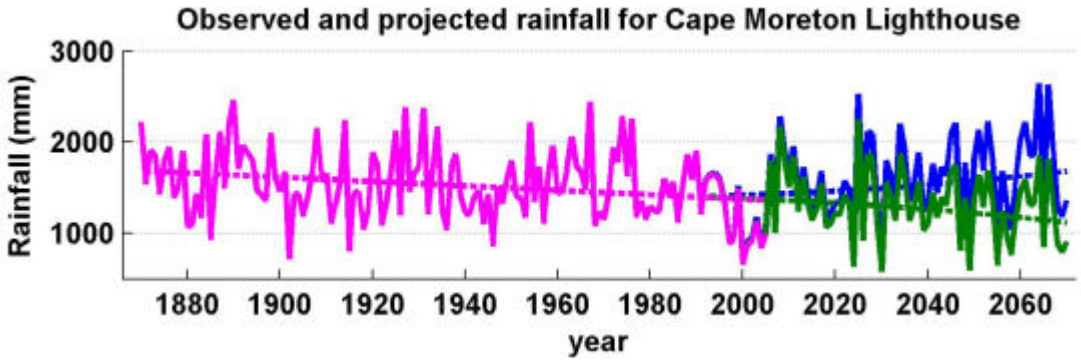
Results

There has been a significant decline in rainfall along Queensland's east-coast since 1950, although it is not clear whether this represents a real shift in rainfall patters, or merely natural climate variability. Average temperatures in Queensland have risen since 1950, and most scientists believe this is a response to enhanced concentrations of greenhouse gases in the atmosphere.

In the figures below, the blue scenario corresponds to the SRES "high" scenario (1.24°C global warming by 2030, and 3.77°C by 2070; IPCC, 2001) and a General Circulation Model with strong regional climate sensitivity, and the green scenarios corresponds to the SRES "low" scenario (0.54°C global warming by 2030, and 1.17°C by 2070; IPCC, 2001) and a General Circulation Model with weak regional climate sensitivity. Post-2005 annual climate variability is entirely synthetic, and is a random permutation of the de-trended 1950-2005 time-series.



NE12.1 Observed and projected average temperature for Cape Moreton Lighthouse. The projections represent the range of likely climate change. The blue line represents the SRES high scenario and the green the low scenario. Date range: 1/01/1913 - 1/01/1970



NE12.2 Observed and projected average rainfall for Cape Moreton Lighthouse. The projections represent the range of likely climate change. The blue line represents the SRES high scenario and the green the low scenario. Date range: 1/01/1870 - 1/01/2070

Desired Regional Outcome 3—Regional Landscape

The key environmental, economic, social and cultural resources of the landscape are identified and secured to meet community needs and achieve ecological sustainability.

SEQ RL01 Publicly accessible open space

The extent of publicly accessible open space

Results

Publicly accessible land in South East Queensland is generally owned and managed by State or Local Government and includes national parks, marine parks, state forests, beaches, regional parks, regional trails, water reservoirs and major parks and reserves as well as land acquired for regional open space purposes.

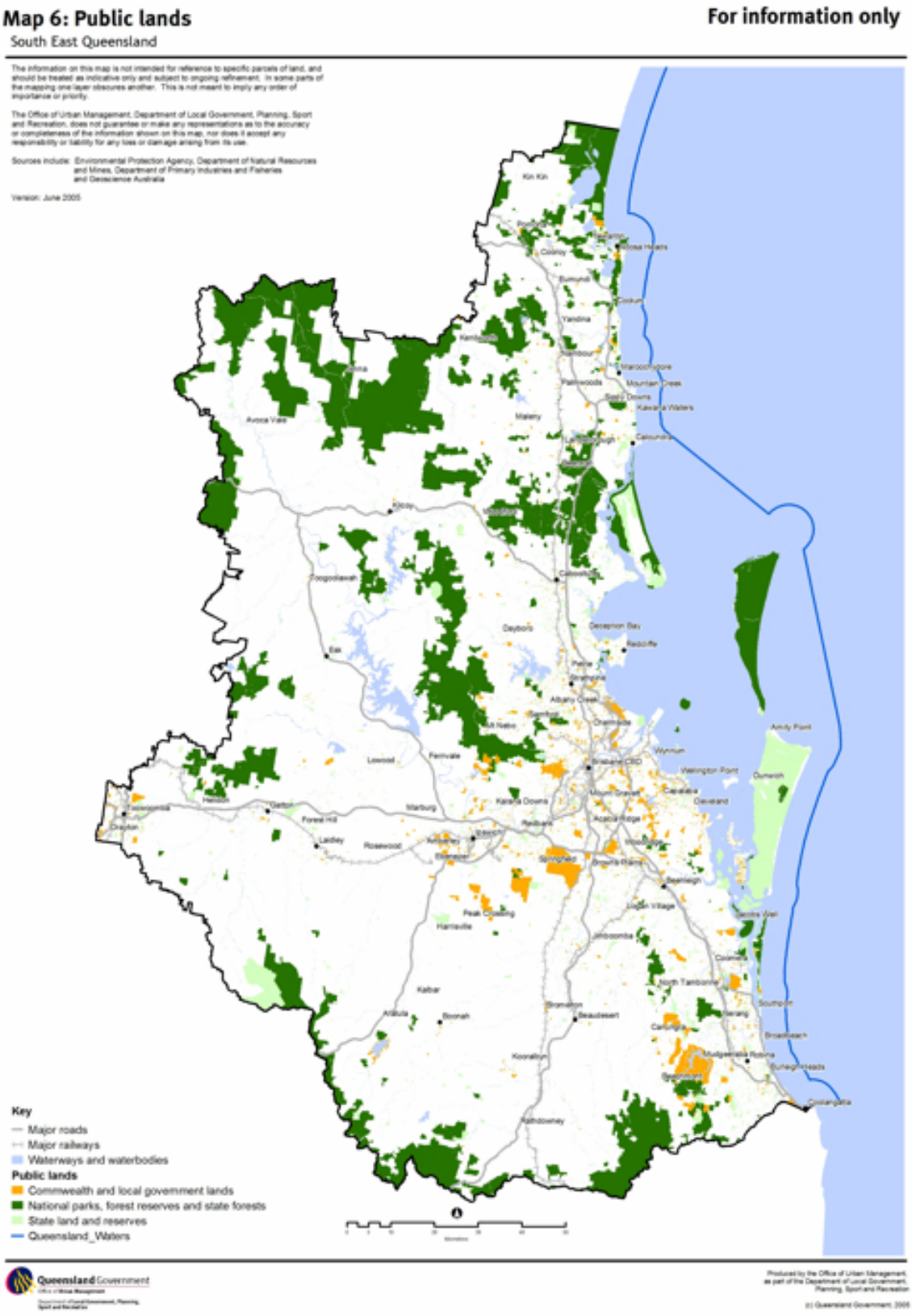
The protected estate of the region is about 347,000 hectares comprising National Parks, Forest Reserve and State Forest; this estate comprises about 15.5 % of the regional total. Most of this land is set aside for nature conservation purposes. This estate provides for a wide range of popular outdoor recreation activities, but these activities are managed to ensure the nature conservation and biodiversity values are sustained.

Other State lands are set aside for various public purposes, and many are managed by local government and other organizations. Information on the public accessibility of the 81,800 hectares of this land is not readily available.

The local governments of the region own and manage land set aside for bush land, green space and sport and recreation purposes. Most of this land has provision for some public access. Only individual local governments have details of the public access to these lands. A common regional data base of the use, access and purpose of local government lands is not available.

While the Commonwealth Government owns significant lands in the region, most of this estate is set aside for defence purposes and is not publicly accessible. Commonwealth and local government lands total about 49,000 hectares or about 2.2 % of the area of the region.

The existing public lands of South East Queensland were mapped for the *South East Queensland Regional Plan 2005 – 2026* as shown in figure RL01.1. The composition of the Public Land in SEQ is given in table RL01.2.



RL01.1 Public Lands map from SEQ Regional Plan. Date range: 30/6/2005.

Type		Area (Ha)	Proportion of SEQ Region (%)
Commonwealth and local government lands		**49,044**	**2.2**
	Commonwealth tenure	6	0.0
	Commonwealth and local government owned lands	49,038	2.2
National parks, forest reserves and state forests		**346,959**	**15.5**
	National park tenure	113,819	5.1
	Forest reserve tenure	122,834	5.5
State land and reserves		**81,799**	**3.7**
	State land tenure	30,532	1.4
	Reserve tenure	43,735	2.0
	Acquired land*	7,532	0.3
Total		**477,802**	**21.4**
SEQ Region area		**2,236,096**	**100**

* includes the Glenrock property near Gatton which is about 6 300 hectares or about 0.3% of the SEQ region

RL01.2 Gross areas and percentage of the region's public land. Date range: 30/6/2005.

It is clear from figure RL01.1 that public lands in SEQ are not evenly distributed across the region. An estimate of the area of Public Land across the eighteen local government areas is provided in table RL01.3.

LGA	Total LGA Area (Ha)	State Lands and Reserves	Public lands			Tenured land			Acquired lands	C'wealth Acquisitions
			Local Govt owned	C'wealth owned	Unspecified	National Park	State Forest	Forest Reserve		
Beaudesert	284752.7	3529.7	1064.3	1082.8	95.4	28543.5	547.5	2232.8	278.5	0
Boonah	191723	988.8	1198.7	0.5	0.1	14807.9	0	3667.6	80.1	0
Brisbane	134511.1	5530.4	12212.3	0	0.3	17411.8	0	11561.3	0	0
Caboolture	122508.9	6369.9	588.6	1.9	0.1	4295.3	13619.5	7762.1	397.5	0
Caloundra	109608	3719.6	658.7	7.6	27	4203	16276.2	8478.8	35.6	0
Esk	392990.3	2460.3	179.6	0	0	1774	40379.1	17460.5	0	0
Gatton	156819.4	1413.5	268.8	0.8	0	5041.7	197.6	12440.5	6239	0
Gold Coast	137225.4	11025.8	10028.6	1708.1	0	8472.1	29.3	4667	500.4	0
Ipswich	120112.4	2541.3	4277.9	1867.3	0	469.7	0	0	0	5.7
Kilcoy	143938.6	673.5	50.7	0	0	3328.9	27845.1	20993.2	0	0
Logan	24949.5	1256.2	1170.9	3984.9	47.1	213.9	0	432	0	0
Laidley	69927.1	694.7	339.2	0	0	1318.4	0	0	0	0
Maroochy	115901.7	2545.2	1379.7	43.4	0	5605	4798.3	19820	0	0
Noosa	86959.4	2225.2	1098.7	0	0	15320.6	6613.8	4130.4	0	0
Pine Rivers	76609	2153.2	2035	0.7	0	1474.6	0	9187.1	0	0
Redcliffe	3593.5	412.8	185.7	0	0	131.9	0	0	0	0
Redland	52212.1	25655.8	2121.6	104.3	0	1305.4	0	0	0	0
Toowoomba	11654.5	1061.7	821.7	385.5	0	0	0	0	0	0

Public lands calculations are based on the spatial data layers used in the SEQ Regional Plan, June 2005, Map 6 'Public lands'.

State lands and reserves May 2005. Custodian EPA/NRW

Derived from the May 2005 Digital Cadastral Database (DCDB) by parcels tenured 'SF', 'RE' and 'SL'. These tenures are described in the DCDB tenure codes as 'land reserved by the NRW for State Forest purposes', 'land reserved by the NRW for community or public purposes', and 'land held by the State of Queensland as Unallocated State land and other areas vested in the State (or Crown) but not held in Fee Simple or as a lease issued under the Lands Act 1994'.

National Parks, Forest Reserves and State Forests May 2006. Custodian OUM/ NRW

Derived from the May 2005 DCDB by parcels tenured 'NP', 'SF' and 'FR'. These tenures are described in the DCDB tenure codes as 'land reserved by the EPA for a National Park, Conservation Park or Resource Reserve', 'land reserved by the NRW for State Forest purposes' and 'tenure of interim nature for a maximum of 5 years and managed by the EPA with associated conditions'.

Commonwealth Acquisitions May 2005. Custodian OUM

Derived from the May 2005 DCDB by parcels tenured 'CA'. Tenure 'CA' is described in the DCDB tenure codes as 'land acquired by the Commonwealth of Australia and held prior to issue of a formal title. Generally, this land is used for military or government store purposes.' This data was used to supplement the Commonwealth/ Local Government Lands data with respect to Commonwealth government ownership.

Land acquired for open space purposes 2004. Custodian OUM

Land acquired under the Regional Landscape Strategy

Public Lands (Commonwealth/ Local Government Lands) September 2003. Custodian EPA/ NRW

Derived by the EPA using NRW database of land owned by the Commonwealth and Local governments.

RL01.3 Public land by Local Government Area. Date range: 1/5/2005.

In 2003, the Brisbane Institute published its ‘Green Space Audit of South East Queensland’, which assessed the area of public and designated open space on a local government basis. This information is generally consistent with other data sources.

Comparisons of the provision for public open space between different jurisdictions do not account for differing land tenure, history, topography, population and public uses. Those aspects need to be considered in the often quoted comparisons made between the area of national parks and State Forests around Sydney and those of SEQ.

However, the broad scale assessment of the National Parks and State Forests in the Greater Sydney Region and South East Queensland confirms the Sydney Region has 43 % compared with about 17 % in South East Queensland.

An alternative approach to providing for publicly accessible regional open space is access to the countryside or bushland along designated corridors or trails. A major public requirement is for trail based activities such as horse riding, trail bike riding, four wheel driving, walking and mountain bike riding. The recently completed *“Active Trails: A Strategy of Regional Trails in South East Queensland”* audited the regional trails in the South East Queensland. In total, 3100 km of existing trails were itemised, including:

- 2550 kilometres of walking trails
- 680 kilometres of shared pathways (recreational cycleways)
- 957 kilometres of mountain bike trails
- 800 kilometres of horse trails
- 50 kilometres of two wheel drive trails
- 340 kilometres of trail bike trails
- 83 kilometres of canoe trails
- 1600 kilometres of shared/multi-use trails.

The existing district and regional trails were inventoried on a local government basis. For the purpose of the Active Trails report, the existing trails with Brisbane Forest Park were assessed separately to the adjacent local government areas.

LGA	Walking tracks (Km)	Shared pathways (recreational cycleways) (Km)	Mountain bike trails (Km)	Horse trails (Km)	2WD (Km)	4WD (Km)	Trail bike (Km)	Canoe (Km)	Other (Km)	Shared trails (Km)	Total[1] (Km)
Brisbane[2]	341	157	92	80	0	47	47	14	0	250	402
Brisbane Forest Park	412	0	365	365	0	6.5	0	0	0	365	412
Caboolture[3]	126	23	20	25	0	86	86	0	0	99	154
Caloundra	112	76	9	14	1	0	0	0	0	94	113
Kilcoy[4]	11	0	50	0	10	70	70	0	ND	0	91
Maroochy[5]	132	33	16	16	37	3	60	0	0	48	132
Noosa	256	19	115	94	0	70	70	27	0	134	353
Pine Rivers[6]	73	22	47	47	0	0	0	19	0	51	92
Beaudesert	339	14	66	62	0	0	11	11	0	88	339
Gold Coast	242	136	91	66	0	0	0	0	0	195	294
Logan	90	34	67	56	0	0	0	22	0	89	124
Redland	155	62	11	11	0	47	0	0	0	73	204
Boonah	25	0	0	1.6	0	0	0	0	0	1.6	25
Esk [7]	8.5	8.5	0	8.5	0	0	0	0	91	8.5	8.5
Gatton	2	1	0	0	0	0	0	0	131	0	133
Ipswich[8]	98	19	10	0	0	0	0	104	0	19	212
Laidley	0.1	0	0	0	0	0	0	0	0	0	0.1
Toowoomba	54	18	10	8	0	0	0	0	0	27	56

ND = No data provided
1 Totals count shared trails only once. Trails in land managed by the Queensland Parks Wildlife Service are not included.
2 Does not include lengths of the Bracken Ridge, Cabbage Tree Creek, Indooroopilly, Karawatha, Calamvale, Algester, Forest Lake and the Inala Cycleways and Pathways
3 Approx. 1500 km of DPI&F Forestry tracks are not included
4 Excluding Mt Mee Forest Reserve areas
5 Data incomplete for shared pathways, mountain bike trails and horse trails
6 Provisional data only
7 Excludes 91 km of National Bicentennial Trail
8 Incomplete dataset

RL01.4 Length of trails in SEQ. Date range: 1/2/2004 – 1/2/2006

Related indicators

SEQ RL02

SEQ RL04

SEQ RL02 Participation in outdoor recreation activities

Participation in outdoor recreation activities in South East Queensland

State of Environment Theme: Human settlements

Results

Results from the SEQ Outdoor Recreation Demand Survey (2001), of 2400 people, show that picnicking (67 %), water sports (53 %), and walking or nature study (47 %) were the most popular outdoor recreation activities. Horse riding (7 %) and abseiling (6 %) were the least popular.

The three most popular outdoor activities - picnicking, water activities and walking or nature study - represented half of all recreational activity in SEQ in 2001.

Comparison of the 1998 and 2001 surveys reveals a shift from "somewhat natural" to "very natural" for all activity settings except abseiling and rock climbing. For example, only 8 % of people picnicked in a "totally natural" setting, but 24 % preferred this setting for more activity.

At least 80 % of participants in every activity did so for leisure rather than "goal-seeking" or competition.

Walking or nature study and water activities recorded the highest median annual participation at 12 per year for both, while the median annual participation for bicycling was 11 times per year.

The relatively high median participation rates for walking/nature study and water activities, and the popularity of these two activities, resulted in annual "participations" (median annual participation x estimated number who participated in the activity) of 10 million and 12 million respectively. By contrast, "participations" in four-wheel driving was 1.7 million.

The most common age groups for participation in any activity, other than abseiling/rock climbing, were the 25-39 and 45-54 age groups.

Walking or nature study had a much higher median participation among the older age groups, but otherwise age had little effect on the frequency of participation.

Participants in post-survey workshops (24 participants only) described the characteristics of their ideal special places as: remote, opportunity to be alone, inaccessible, and totally natural.

The attributes of their local special places were seen as: accessible, safe, (having) facilities, and providing access for the disabled.

Some of the perceived threats to the participants' experience of natural areas were: urban development, (being) pushed out, overuse, crowding and noise. "Unmanaged urban development" was seen as the greatest threat.

Participants who used noisy machinery for recreation resented imposed limits on their activities as more areas were being "locked up" as National Parks.

Many participants spoke of the need for "green belts" to alleviate the urban spread and the urgent need to set aside large areas of natural bushland.

Surveys were carried out in 1997 and 2001, with a trend survey anticipated in 2007.

Activity	Representative of Population in S.E. Qld (millions)	Estimated popularity of participation (population x median) (millions)	Estimated number of activity events (population x mean) (millions)
Abseiling or rock climbing	0.1	0.2	0.4
Other vehicles	0.1	0.6	2.7
Horse riding	0.1	0.3	3.2
Camping	0.6	1.3	3.3
Non-motorised watercraft	0.4	0.7	5.8
Motorised watercraft	0.5	2.1	6.3
4WD vehicles	0.4	1.7	7.1
Picnicking	1.3	5.1	8.8
2WD vehicles	0.5	2.3	11.5
Bicycle riding	0.5	5.4	21.5
Water activities	1.1	12.8	30.0
Walking or nature study	0.9	11.2	66.8
TOTAL	**6.5**	**43.7**	**167.4**

RL02.1 Outdoor Recreation Activity Events per Year. Date range: 1/09/2001 - 30/11/2001

Related links

Outdoors Queensland

http://www.qorf.org.au/default.asp

SEQ Regional Outdoor Recreation Strategy

http://www.oum.qld.gov.au/?id=36

Desired Regional Outcome 4 – Natural Resources

Regional natural resources and rural production areas are protected, enhanced and used sustainably.

SEQ NR01 Change in land use

Change in land use in South East Queensland

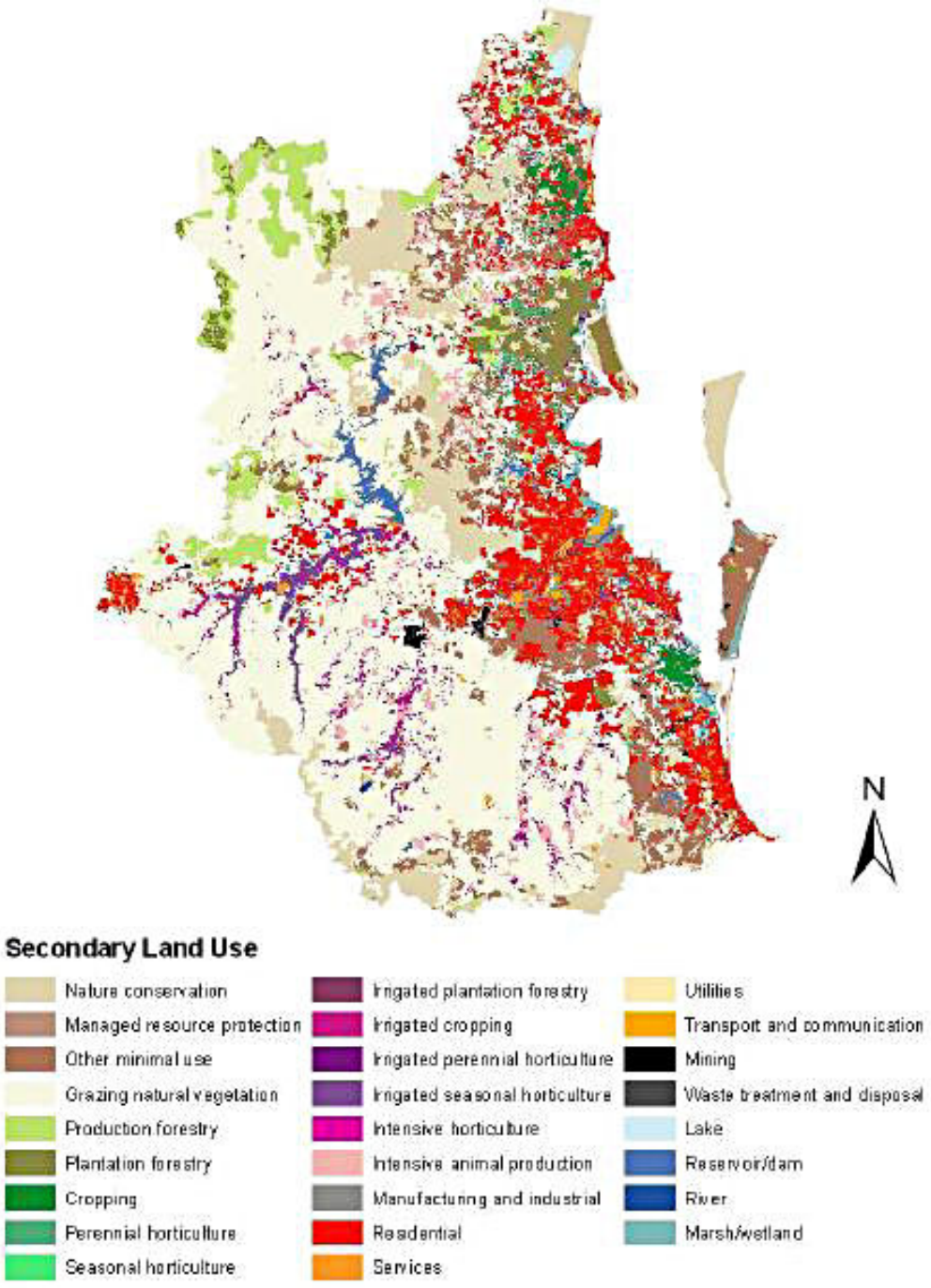
State of Environment Theme: Land

Results

Land use for 1999 is described for the SEQ Regional Plan area. It is anticipated that land use change statistics for the region (1999 - 2004) will be available within the next few years.

The Department of Natural Resources & Water (NRW) has been undertaking catchment-scale land use mapping in Queensland for approximately six years. The Queensland Land Use Mapping Program (QLUMP) is part of a collaborative national land use mapping program initiated and coordinated by the Commonwealth Bureau of Rural Sciences (BRS) and undertaken by agencies in all states and territories. Mapping has recently been completed for the entire state and a baseline map of land use in 1999 prepared. Nominal scale is 1:50,000 in the coastal zone and areas of highly intensive land uses and 1:100,000 in the pastoral zone and areas of low intensity land uses. Mapping was completed for the 79 catchments in Queensland and mosaiced into a statewide dataset.

Land Use 1999 -
South East Queensland Regional Plan area



NR01.1 Land Use 1999. Date range: 1/01/1999 - 31/12/1999

Related links

NRW - Queensland Land Use Mapping Program

http://www.nrw.qld.gov.au/science/lump/index.html

SEQ NR02 Consistency of land use

Area and percentage matches between land use and land suitability for that use in South East Queensland

State of Environment Theme: Land

Results

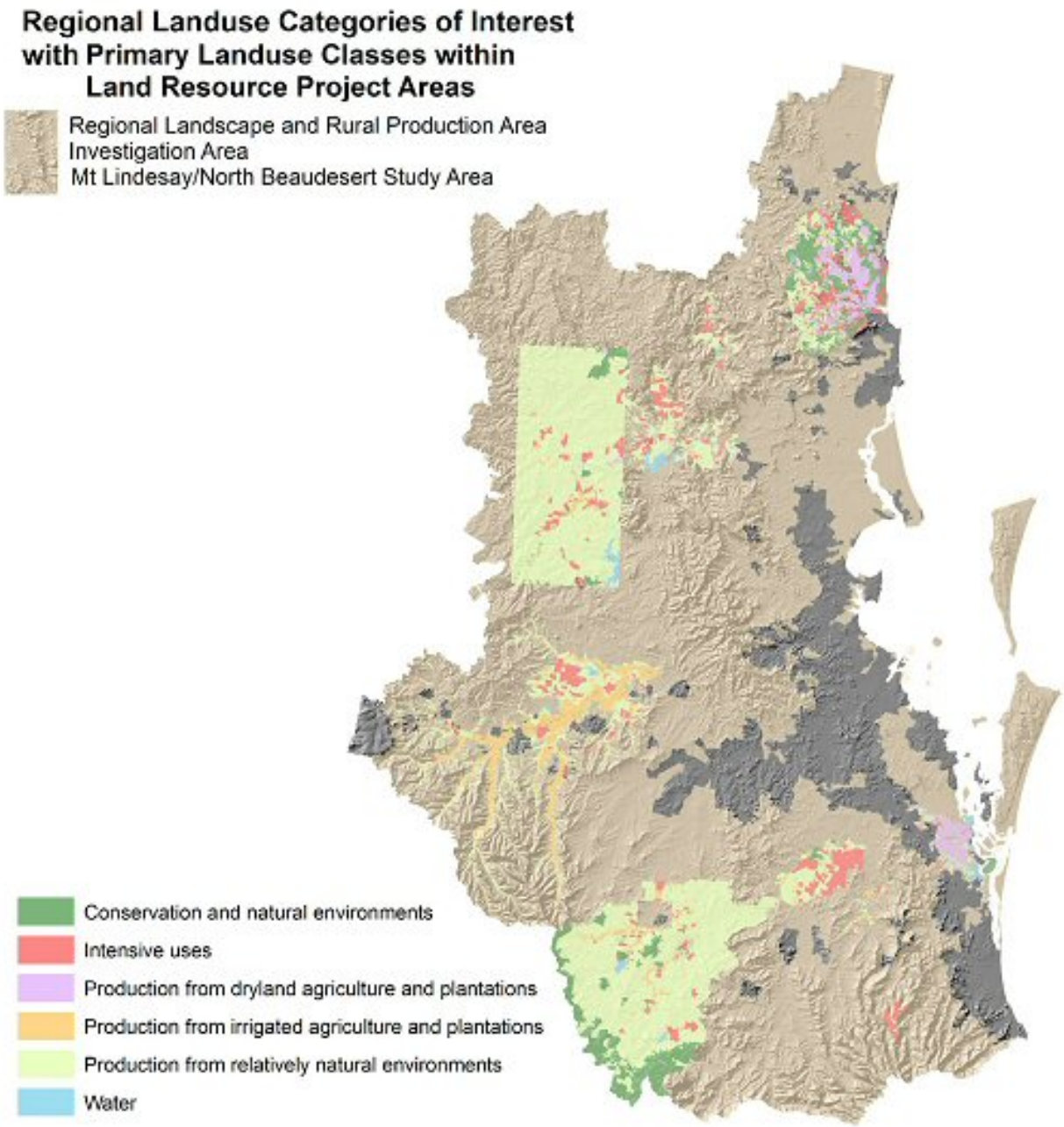
This dataset is a methodology pilot for appropriate agricultural land use in SEQ. It produces a simply understood and overarching statement of the extent to which land is being managed within its capability. The result is indicative. The result is limited by:

- incomplete spatial coverage of land suitability mapping in the area
- age of land use mapping coverage (1999)
- some limitations in matching land use to land suitability in areas where data exist due to the differing lineage of the two data sets.

The third limitation will be overcome by data manipulation over the next three months. The first limitations depend on ongoing funding. Projects to improve the spatial and temporal coverage have begun or are proposed. The timing will be in years depending on the level of funding support.

The planning imperative for SEQ is to ensure that the best mix of land use is achieved and that the use of the land in the long term is sustainable. In the non-urban areas of the region and particularly in those areas remaining under agricultural production, the long term aim is to manage the land in ways which produce optimal income for the landholder and which are sustainable into the long term. The preferred indicator of that situation would be simple and easily understood and would reflect "wise" landuse. Such an indicator would be able to answer the question - to what extent is land being used to its capacity? To measure appropriate agricultural land use, we need to investigate what the land is currently being used for and then compare against land suitability assessment statements available within the existing Land Resource Assessment mapping for SEQ.

The indicator consists of area and percentage matches between agricultural land use and land suitability for that use and is supported by maps and tables.



NR02.1 Regional Landuse Categories of Interest with Primary Landuse Classes within Land Resource Project Areas. Date range: 1/01/1979 - 31/12/2005

Related links

NRMW - Land management

http://www.nrm.qld.gov.au/land/index.html

SEQ NR03 Salinity

Area affected by salinity

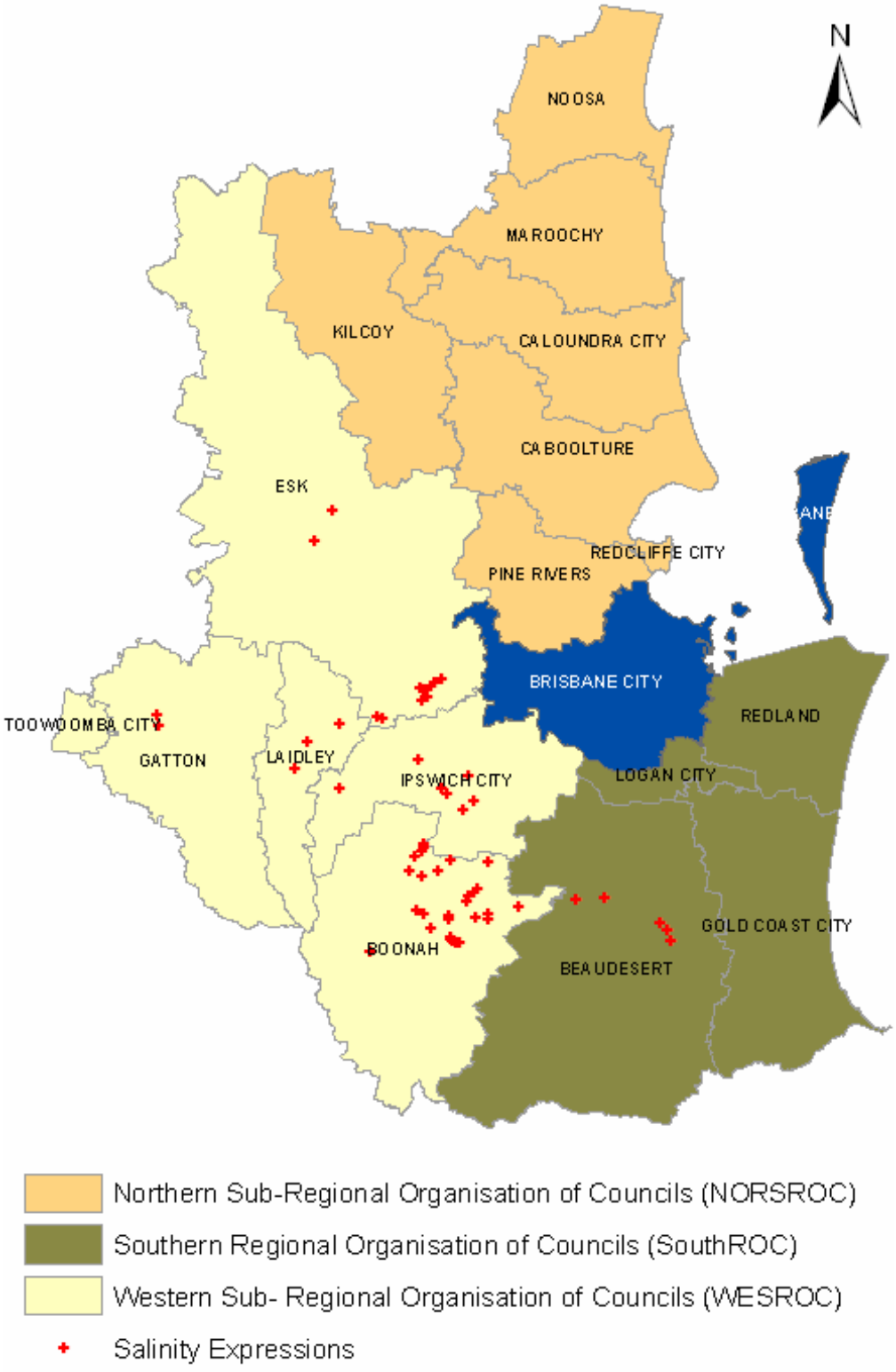
State of Environment Theme: Land

Results

This report outlines the results from a survey conducted in mid 1990s that was directed at estimating the extent of salinity across the state. The results from this survey became the basis of a database on induced or secondary salinity in Queensland which is currently managed through the Department of Natural Resources and Water (NRW). Further salinity sites have been added to the results from the initial survey through extensive field survey as part of the National Action Plan for Salinity and Water Quality drilling program.

The salinity survey was directed towards induced or secondary salinity in dryland and irrigation situations. Whilst it is recognised that scalding is a major threat to arid and semi-arid grazing lands, the processes are well understood and in many cases manageable with appropriate stocking strategies and property management (Gordon 1991).

The results from the survey have indicated that the most severely salt affected region in Queensland is the South East region. The salinity types identified in this region were seepage and watertable salting, scalding and irrigation salinity. It should be noted that the SEQ region outlined in the survey conducted by Gordon is the NRW South East region and differs from the SEQ Regional Plan boundary.



NR03.1 Salinity Expressions - South East Queensland Regional Plan Area. Date range: 1/01/1990 - 16/04/2003

Related links

NRW Land management Salinity http://www.nrw.qld.gov.au/salinity/index.html

SEQ NR04 Acid sulfate soils

Extent of Acid sulfate soils

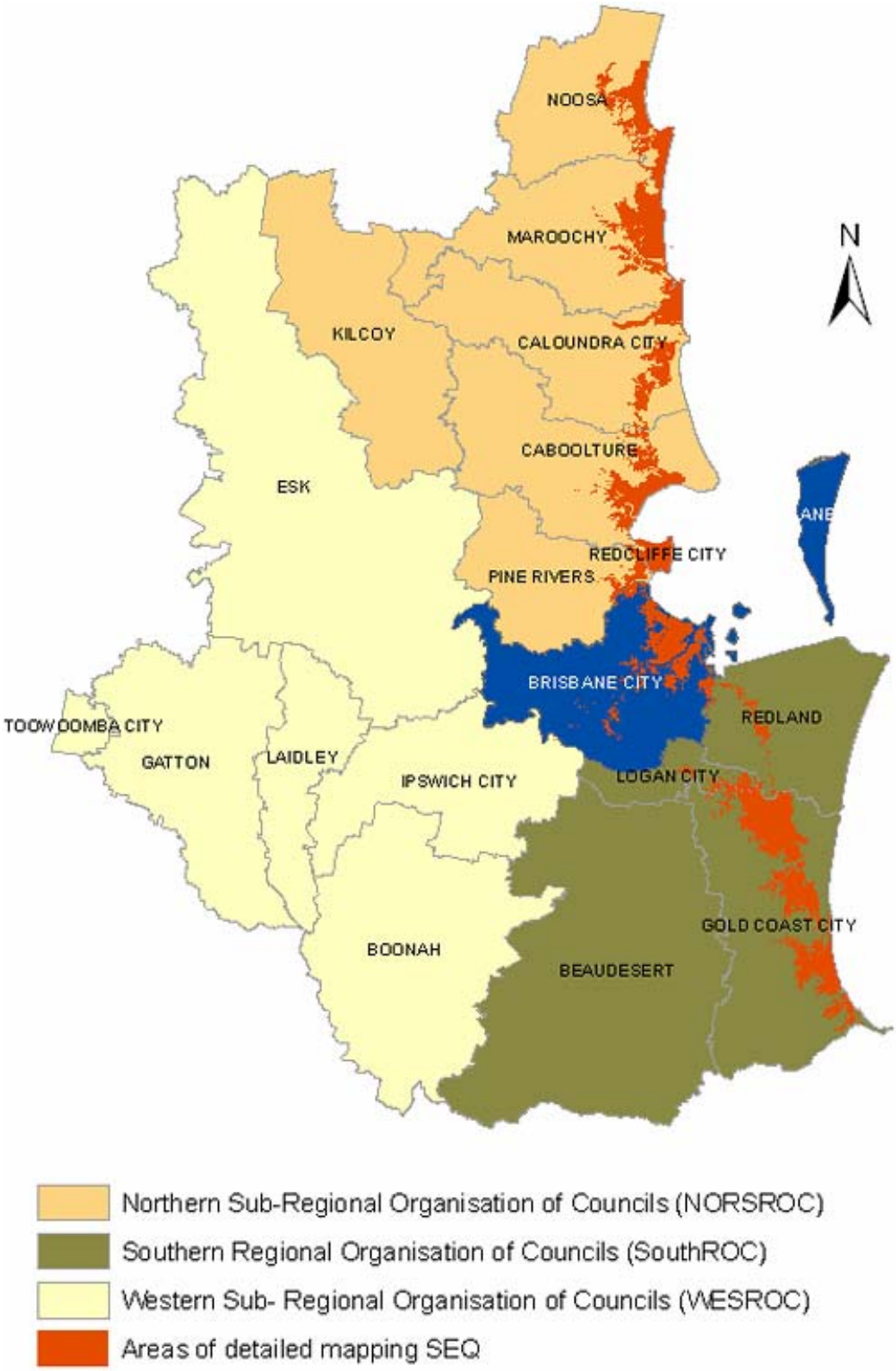
State of Environment Theme: Land

Results

Since 1995, NRW has initiated a number of projects to identify the extent, location, and risk level of acid sulfate soils (ASS) in Queensland. The mapping has been done in stages, and has concentrated on areas where the land uses are likely to have had the greatest impact on ASS. A preliminary assessment based on the Qm unit (Quaternary, coastal and estuarine sediments) of the Queensland Geology map (Geological Survey of Queensland 1975) showed that there are about 2 263 000 ha of ASS in low lying coastal area of the state. Extensive areas were noted along the coast of the Gulf of Carpentaria, Cape York, Central Queensland and the Moreton region.

This map indicates the presence of broadscale (1:100 000) mapping of potential acid sulfate soils (PASS) for the SEQ Regional Plan area from the NSW border to Noosa. Acid sulfate soils on disturbed land (ie. developed areas) are also identified in these maps however field assessment in these areas is limited. Mapping at 1:100 000 scale has been completed in SEQ. This revealed that there are 60 000 ha of ASS between Coolangatta and Noosa alone.

For more information regarding these maps or to obtain copies please contact the Queensland Acid Sulfate Soils Investigation Team (QASSIT) part of the Department of Natural Resources and Water.



NR04.1 Areas of Detailed Mapping (ASS and PASS). Date range: 1/01/1996 - 15/02/2000

Related links

NRW Land management Acid sulfate soils http://www.nrw.qld.gov.au/land/ass/index.html

Desired Regional Outcome 5—Rural Futures

Rural communities are strong and viable with sustainable economies, contributing to the health, character and liveability of the region.

SEQ RF02 Agricultural production

Value and area of agricultural production by major commodity for South East Queensland.

State of Environment Theme: Land

Results

Area assigned to agricultural production

RF02.1 shows that the total area under horticultural production in South East Queensland for the year ended June 2001 (latest agricultural census data available) was 26,709 ha, representing 27.3 % of the State total. The total area assigned to livestock grazing was 489,434 ha, comprising 0.7 % of the total grazing area of the state total.

The local government area with the largest area assigned to horticultural production was Gatton Shire (4,723 ha), followed by Caloundra City (4,258 ha) and Laidley Shire (4,238 ha).

The data presented in these tables relate to latest statistics. This data provides a base case scenario from which future trend analysis can be compiled.

Local Government Area	Gross value of crops ($m)	Gross value of livestock disposals ($m)	Gross value of livestock products ($m)	Total gross value of agricultural production[a] ($m)
Beaudesert (S)	43.0	62.8	18.9	124.7
Boonah (S)	20.6	38.7	8.0	67.4
Brisbane (C)	20.4	4.6	5.3	31.1
Caboolture (S)	50.2	16.0	5.9	72.2
Caloundra (C)	40.0	39.8	13.2	93.0
Esk (S)	47.7	41.4	7.3	96.4
Gatton (S)	85.6	11.3	1.1	98.0
Gold Coast (C)	29.5	8.0	5.9	43.4
Ipswich (C)	6.9	14.7	5.4	27.0
Kilcoy (S)	0.3	7.0	4.2	11.5
Laidley (S)	48.7	5.8	1.6	56.0
Logan (C)	7.8	13.5	0.2	21.5
Maroochy (S)	38.7	4.1	6.8	49.5
Noosa (S)	6.8	4.2	2.5	13.5
Pine Rivers (S)	6.5	4.5	5.1	16.1
Redcliffe (C)	–	–	–	–
Redland (S)	24.7	34.5	1.5	60.7
Toowoomba (C)	0.8	0.3	0.3	1.4
SEQ[a]	**484.5**	**311.1**	**93.7**	**884.2**
Queensland	3 391.2	3 368.4	490.3	7 249.9
SEQ as a % of Qld	14.3	9.2	19.1	12.2

C = City S = Shire

– nil or rounded to zero

a The sum of the components may not equal the total due to the use of various sample fractions at each regional level

Source: Australian Bureau of Statistics, Agriculture Census 2000–01 (unpublished data)

RF02.1 Value of Agricultural production by Local Government Area, Brisbane and Moreton Statistical Division 2000-01. Date range: 1/07/2001 - 30/06/2002

Agricultural commodity	SEQ Region ($m)	Region as a percentage of Queensland (%)
Cattle and calves slaughtered	156.1	5.3
Poultry slaughtered	144.4	90.3
Milk	78.3	33.7
Nurseries	77.1	62.7
Strawberries	30.4	95.9
Lettuce	28.4	66.1
Pineapples	28.3	64.2
Cultivated turf	27.4	74.1
Mushrooms	26.3	72.9
Tomatoes	23.7	17.5
Total	**884.2**	**12.2**

Source: ABS, Agricultural Census 2000–01 unpublished data.

RF02.2 Value of Agricultural Production, major commodities, SEQ Region 2000-2001. Date range: 1/07/2001 - 30/06/2002.

Local Government area	Horticultural crops - total area (ha)	Total area of all pastures (ha)
Beaudesert (S)	1,084	92,140
Boonah (S)	1,318	79,522
Brisbane (C)	810	1,011
Caboolture (S)	2,797	12,654
Caloundra (C)	4,259	12,992
Esk (S)	2,903	126,351
Gatton (S)	4,723	27,996
Gold Coast (C)	664	6,504
Ipswich (C)	261	27,739
Kilcoy (S)	57	46,594
Laidley (S)	4,238	22,575
Logan (C)	369	166
Maroochy (S)	1,420	10,570
Noosa (S)	557	10,544
Pine Rivers (S)	538	8,568
Redcliffe (C)	–	–
Redland (S)	670	902
Toowoomba (C)	11	2,157
South East Queensland	**26,709**	**489,434**
Queensland	97,735	70,703,548
SE Qld Region as a % of Qld	27.3	0.7

– = Nil or rounded to zero

C = City S = Shire

Source: Australian Bureau of Statistics, *Agriculture Census 2000-01* (unpublished data).

RF02.3 Area assigned to horticultural and grazing activities by local government area, South East Queensland Region, 2000-01.

Desired Regional Outcome 6—Strong Communities

Cohesive, inclusive and healthy communities with a strong sense of identity and place, and access to a full range of services and facilities that meet diverse community needs.

SEQ SC01 Health and well-being

Health and well-being indicators for South East Queensland

State of Environment Theme: Human settlements

Results

Strong communities are those endowed with social, economic and environmental assets and organisational structures that work towards their sustainable and equitable distribution.

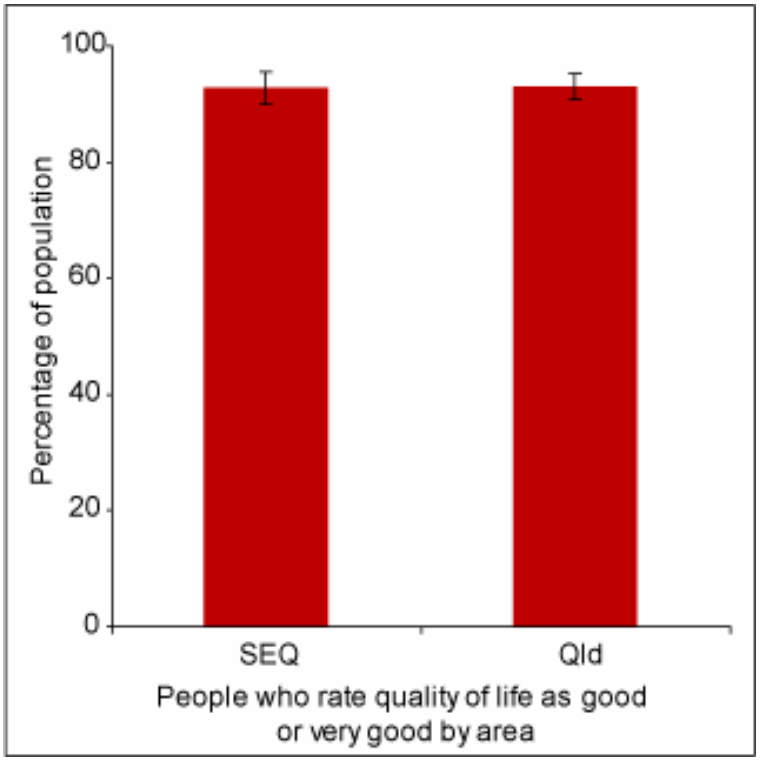
Health and wellbeing can be measured using a number of indicators, including quality of life, self-reported health, satisfaction with health, sense of control and psychological distress. Overall, Queenslanders rate their health and wellbeing using these indicators as high.

Over 90 % of adults in Queensland aged 18 years and older rated their quality of life and their health as good or very good in 2002. Those living in SEQ reported similarly high levels. People in areas of highest socioeconomic disadvantage in Queensland reported significantly lower health than people in areas of low disadvantage. Self-reported health status was generally lower for males, and for older people than younger people. Similar patterns would be expected in SEQ. The majority of Queenslanders (approximately 80 %) were satisfied with their health in 2002, with similar rating of those in SEQ.

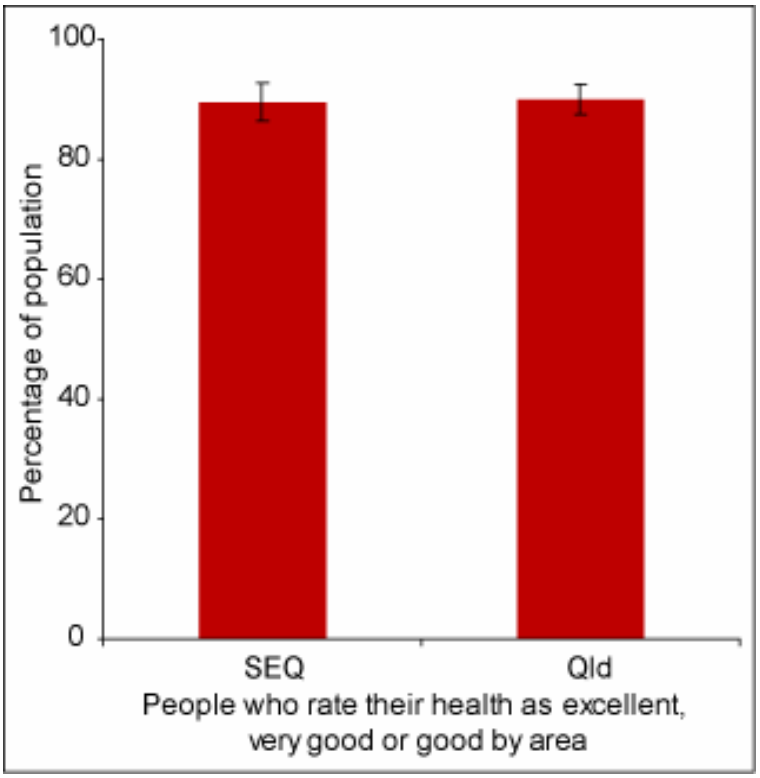
While our socioeconomic position connects us to the physical and social resources that can make our life better, the feelings of empowerment and status that go with the connection to these resources are also important. This second dimension is important because people who feel in control of their lives are also more likely to take control of their health. Approximately 90 % of adults in Queensland and in SEQ reported having a sense of control over the personal decisions that affect their life. Young males in Queensland aged 18-29 years were the most likely to report feeling control over the decisions which affect their life, where the proportion of males feeling such control significantly decreased with increasing age. A sense of control over the decisions which affect your life was significantly associated with better quality of life, self reported health and satisfaction with health.

In Queensland in 2004, approximately 15 % of the adult population reported high or very high levels of psychological distress over the previous four week period. In people under 55 years, a greater proportion of women reported high or very high levels of psychological distress than males. Females aged 18-24 years reported highest levels of psychological distress followed by 25-34 years, with the rate declining with age. Male rates varied between age groups, with peaks in the age group 25-34 years and 55-64 years, before declining in older age groups. The prevalence of high levels of psychological distress was higher in areas of most socioeconomic disadvantage.

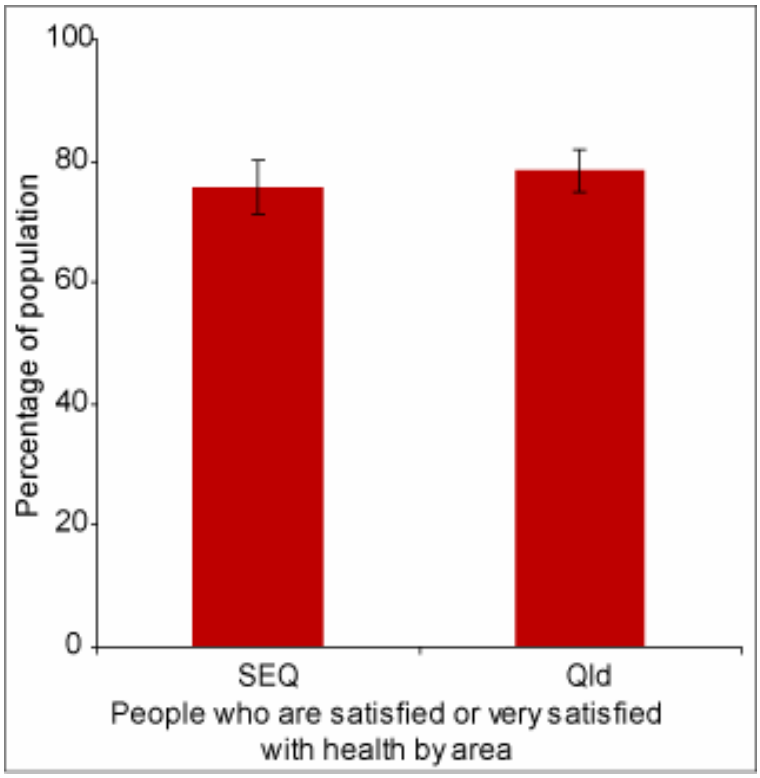
Detailed analysis of health status and the determinants of health in Queensland associated with this indicator have previously been reported: http://www.health.qld.gov.au/hdg/.



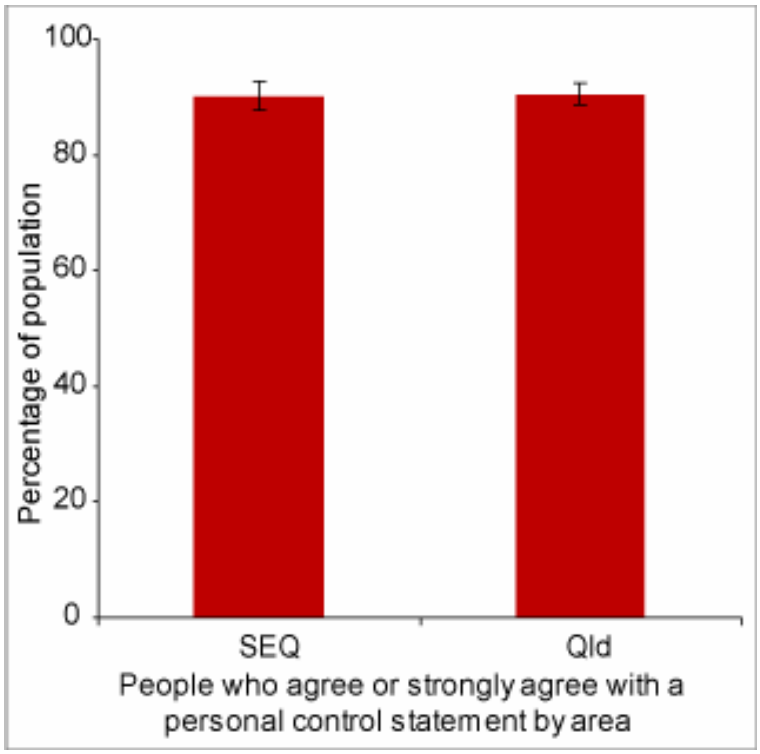
SC01.1 Quality of life. Date range: 1/01/2002 - 31/12/2002



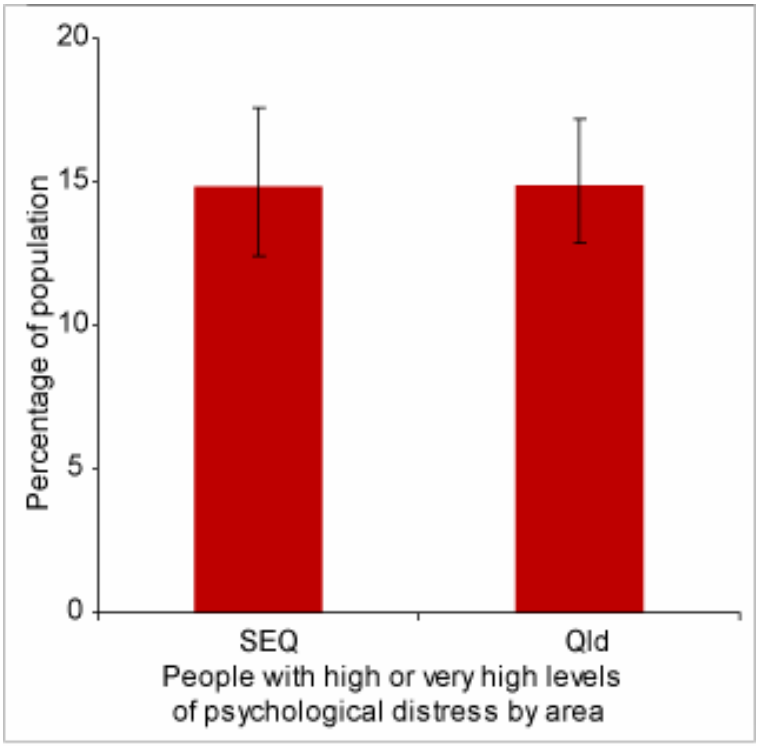
SC01.2 Self reported health. Date range: 1/01/2002 - 31/12/2002



SC01.3 Satisfaction with health. Date range: 1/01/2002 - 31/12/2002



SC01.4 Personal sense of control. Date range: 1/01/2002 - 31/12/2002



SC01.5 Psychological distress. Date range: 1/01/2005 - 31/12/2005

Related indicators

SEQ SC02

SEQ SC06

SEQ SC07

Related links

Health Determinants Queensland 2004

http://www.health.qld.gov.au/hdq/

SEQ SC02 Social capital

Social capital includes measures of people's willingness to help one another, levels of volunteering, sense of belonging, trust and enjoyment of diversity.

State of Environment Theme: Human settlements

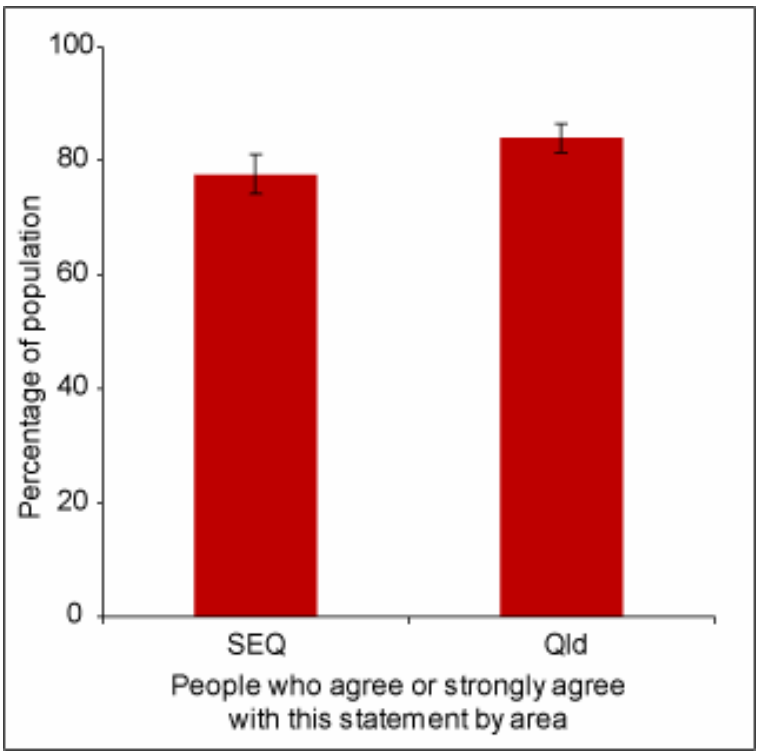
Results

Strong communities require members to be engaged, involved, feel capable of working through issues and be supported through external partnerships. Social capital has been defined as 'social relations of mutual benefit characterised by norms of trust and reciprocity'. It describes features of social life such as how involved we are in our community, how much we trust each other and our governments and institutions, how connected we are to our communities and families and how much we help each other. People who actively participate in their community and have strong and supportive family, cultural and community relationships have better health than people who are socially isolated.

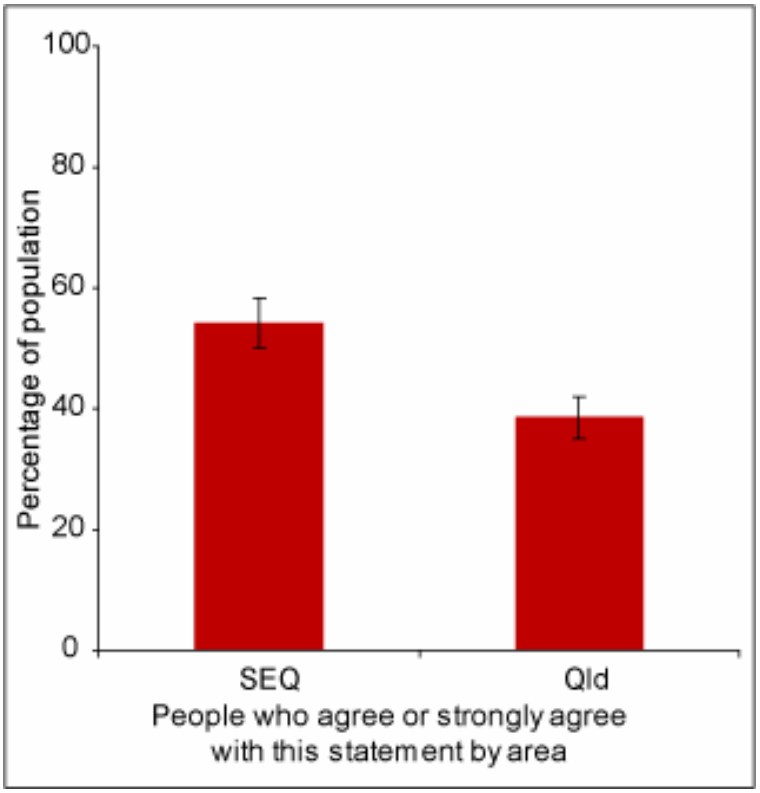
The measurement of social capital is complex because it is a multi-dimensional concept and because it includes people's perceptions, their beliefs and their attitudes as well as their behaviours. In 2002 a measurement tool was used in a Queensland survey which measured core domains of social capital including generalised reciprocity and cohesion, community identity and generalised trust. Single indicators from these core domains are reported. Detailed discussion and reporting of social capital in Queensland is available from *Health Determinants Queensland 2004* at http://www.health.qld.gov.au/hdq/.

The majority of adults in SEQ reported high levels of each of these indicators of social capital. Half the adults in SEQ reported to have been actively involved in volunteer activities intended to benefit their community. This contrasts with 39 % of all Queenslanders reporting such involvement. While little variation between SEQ and Queensland was observed for most of the indicators, it is anticipated that variation would be measurable between neighborhoods within this region. However, such information is unavailable. There are some age group differences in reporting social capital. For example, older adults generally reported higher levels of these indicators, where specifically older people reported higher levels of belonging to the neighborhood and neighborhood trust.

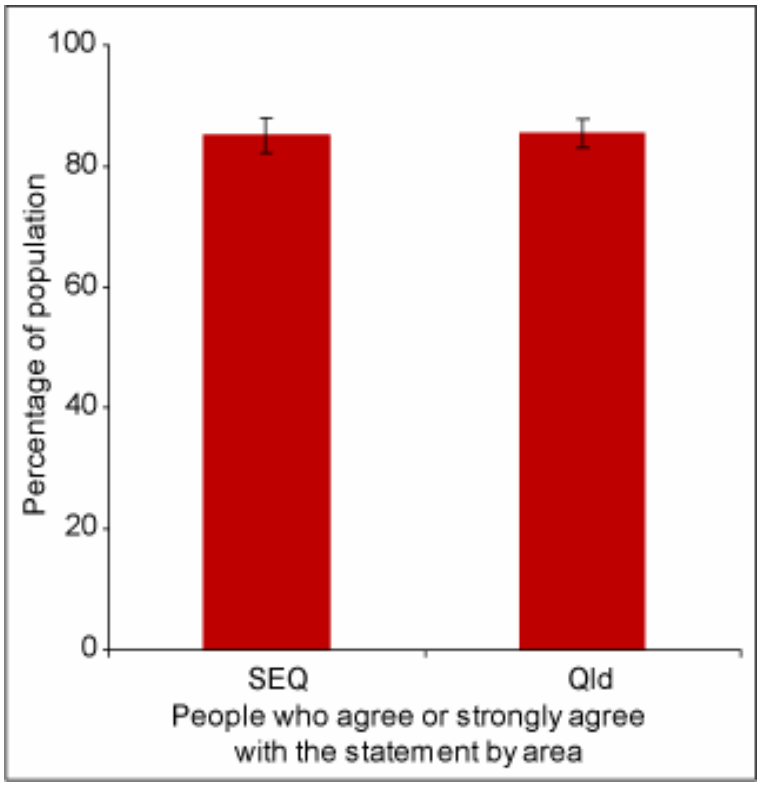
Detailed analysis of health status and the determinants of health in Queensland associated with this indicator have previously been reported: http://www.health.qld.gov.au/hdq/.



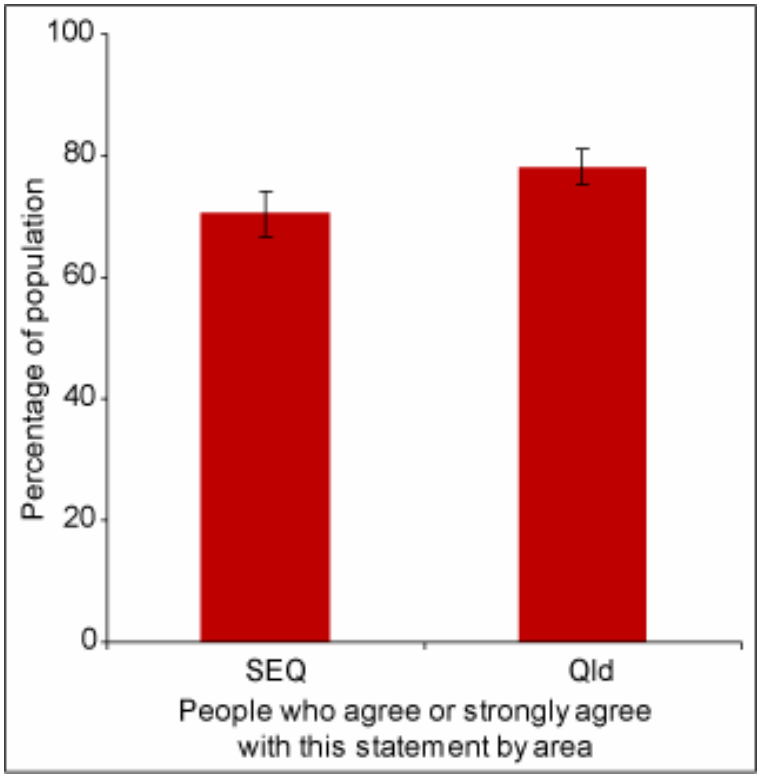
SC02.1 People in my neighbourhood are willing to help one another. Date range: 1/01/2002 - 31/12/2002



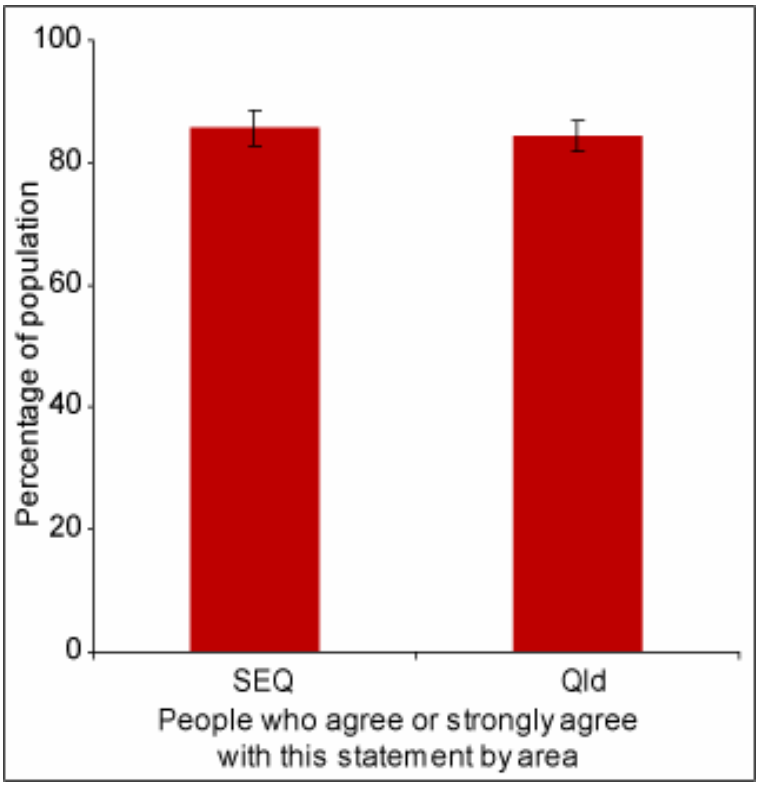
SC02.2 I have been actively involved in volunteer activities intended to benefit my community. Date range: 1/01/2002 - 31/12/2002



SC02.3 I feel like I belong in this neighbourhood. Date range: 1/01/2002 - 31/12/2002



SC02.4 Most people in my neighbourhood can be trusted. Date range: 1/01/2002 - 31/12/2002



SC02.5 I enjoy living among people of different lifestyles. Date range: 1/01/2002 - 31/12/2002

Related indicators

SEQ SC01

SEQ SC06

SEQ SC07

Related links

Health Determinants Queensland 2004

http://www.health.qld.gov.au/hdq/

SEQ SC03 Social advantage/ disadvantage index

Social advantage/ disadvantage index for SEQ

State of Environment Theme: Human settlements

Results

Introduction

The Socio-Economic Indexes for Areas (SEIFA) are composite indicators of the relative socio-economic well-being of small areas, based on data taken from the ABS Census of Population and Housing. The SEIFA Index of Relative Socio-Economic Advantage/Disadvantage, which was first introduced in 2001, represents a continuum of relative disadvantage to relative advantage based on consideration of variables relating to disadvantage including low income, unemployment, low status occupations and low education; and variables relating to advantage including high income, high status occupations, high education, and larger dwellings.

The 2001 SEIFA Index information for these Indicators is assessed at Statistical Local Area (SLA) level. The 452 SLAs in Queensland were ranked by ascending SEIFA score then divided into quintiles, with the first quintile (Q1) representing the most disadvantaged areas, and the last quintile (Q5) representing the most advantaged areas.

Known Information Gaps

SEIFA index scores are ordinal measures and should only be used to rank areas relative to each other. The interval between scores is not meaningful, nor is there any valid arithmetic relationship between scores. SEIFA Indexes are derived from Census population data and are updated only every five years. The number of SLAs in Queensland will vary over intercensal periods.

Data Object 1- Number and proportion of Statistical Local Areas within each SEIFA quintile by Local Government Areas in SEQ, 2001 Census.

This indicator tracks the number of SLAs occurring in the SEQ region for each quintile by LGA, and the number and percentage of SLAs occurring in the SEQ region for each quintile. Only 12% of all SLAs in SEQ fall within the first quintile of SEIFA scores for Queensland, representing those areas that are relatively more disadvantaged. On the other hand, 29% of all SEQ SLAs fall within the fifth quintile, reflecting relative advantage.

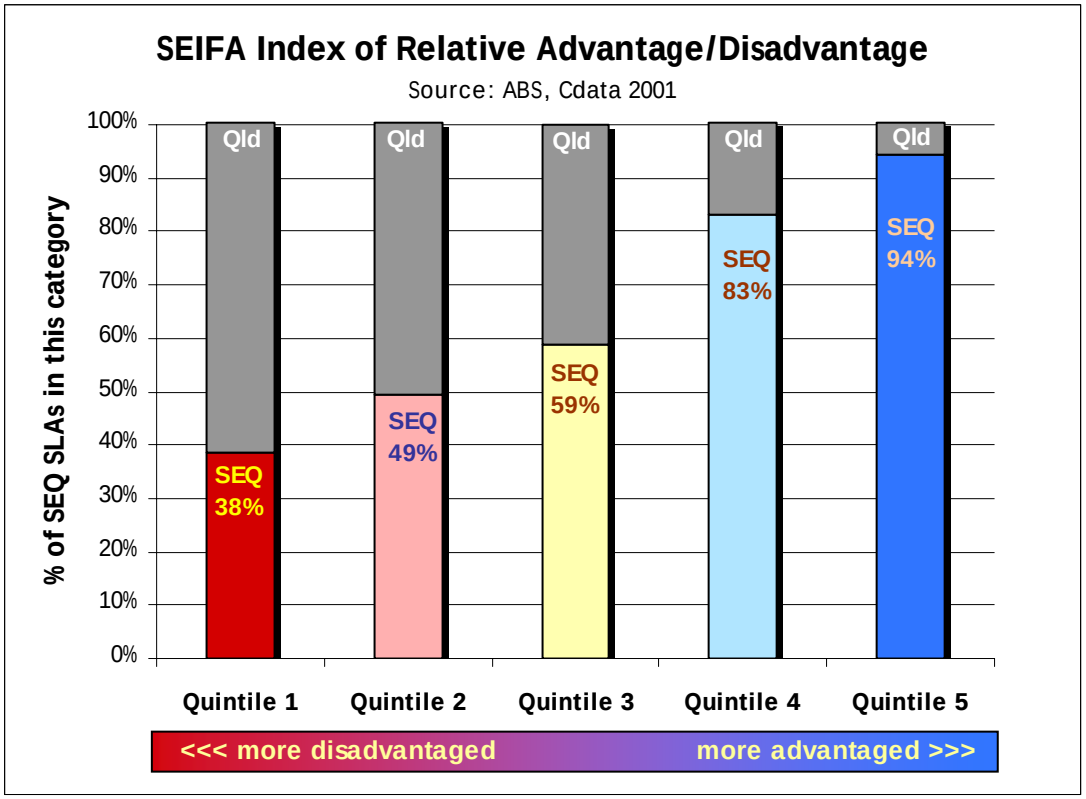
Local Government Area	More disadvantaged ◄			More advantaged ►		Total SLAs
	Quintile 1 # of SLAs	Quintile 2 # of SLAs	Quintile 3 # of SLAs	Quintile 4 # of SLAs	Quintile 5 # of SLAs	
Beaudesert Shire	0	0	2	0	0	2
Boonah Shire	0	1	0	0	0	1
Brisbane City	12	6	22	42	81	163
Caboolture Shire	5	1	2	0	0	8
Caloundra City	0	4	1	0	0	5
Esk Shire	1	0	0	0	0	1
Gatton Shire	0	1	0	0	0	1
Gold Coast City	6	11	14	15	1	47
Ipswich City	0	4	0	1	0	5
Kilcoy Shire	1	0	0	0	0	1
Laidley Shire	1	0	0	0	0	1
Logan City	5	4	3	5	0	17
Maroochy Shire	1	3	2	1	0	7
Noosa Shire	0	2	0	2	0	4
Pine Rivers Shire	0	3	2	2	3	10
Redcliffe City	1	3	0	0	0	4
Redland Shire	1	1	4	6	0	12
Toowoomba City	1	1	1	2	0	5
Total SEQ Region	35	45	53	76	85	294
As % of SEQ REGION	12%	15%	18%	26%	29%	100%

Source: Australian Bureau of Statistics, Socio-Economic Indexes for Areas (2001 Census) – Index of Relative Socio-Economic Advantage/Disadvantage. ABS Cat No 2033.3.30.001.

SC03.1 Number and proportion of Statistical Local Areas within each SEIFA quintile by Local Government Areas in SEQ, 2001 Census.

Data Object 2: Graph of quintile distributions - SEQ and Balance of Queensland

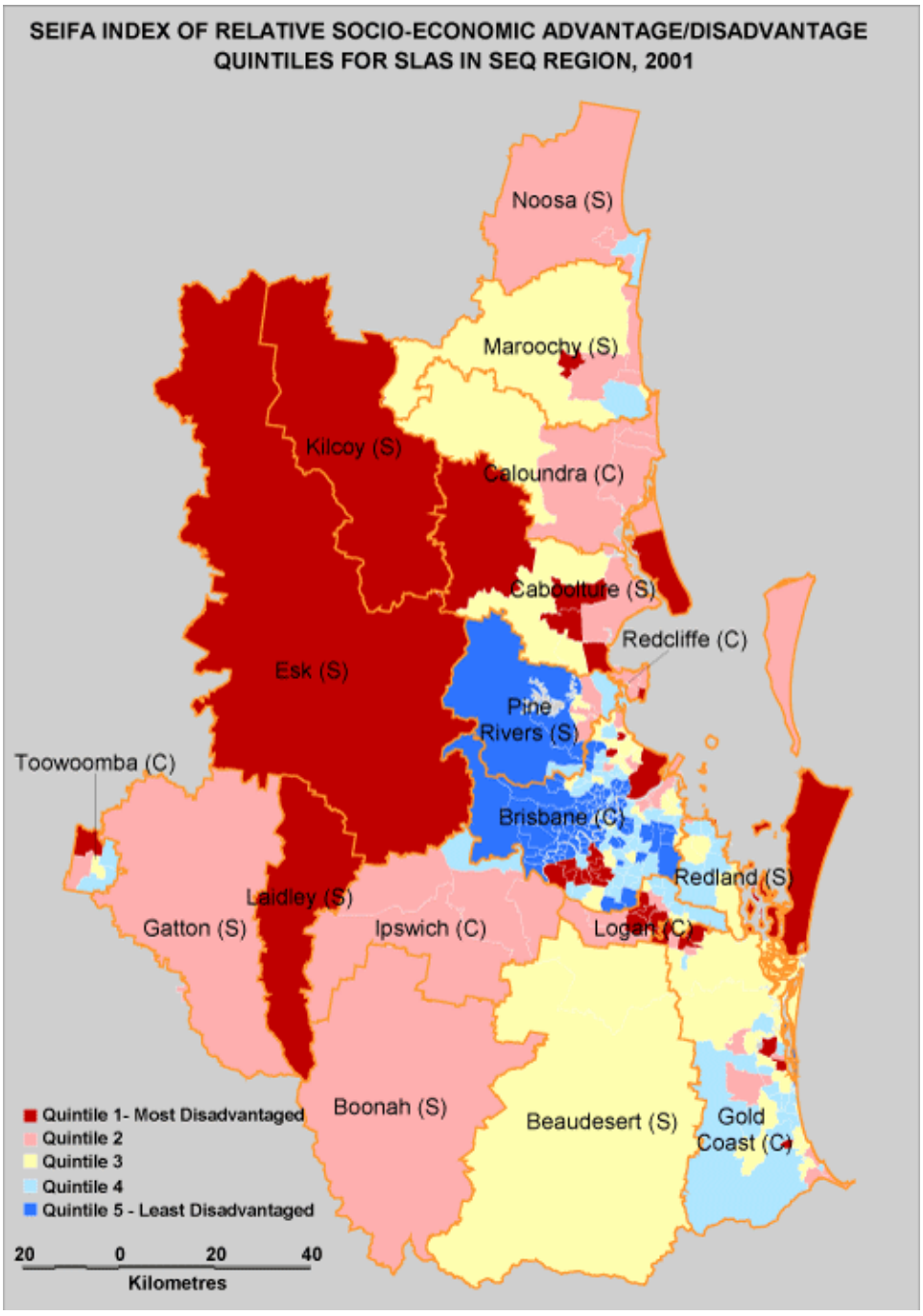
This indicator compares the proportion of SEQ SLAs that fall within each quintile for the SEIFA Index of Relative Advantage/Disadvantage to non-SEQ SLAs. It is a measure of the performance of the SEQ region compared to the rest of the State. Only 38% of Queensland's more disadvantaged SLAs (those in the first quintile) are located in the SEQ region. By comparison, SEQ contains the majority (94%) of the State's SLAs that are most advantaged, mainly located in Brisbane LGA.



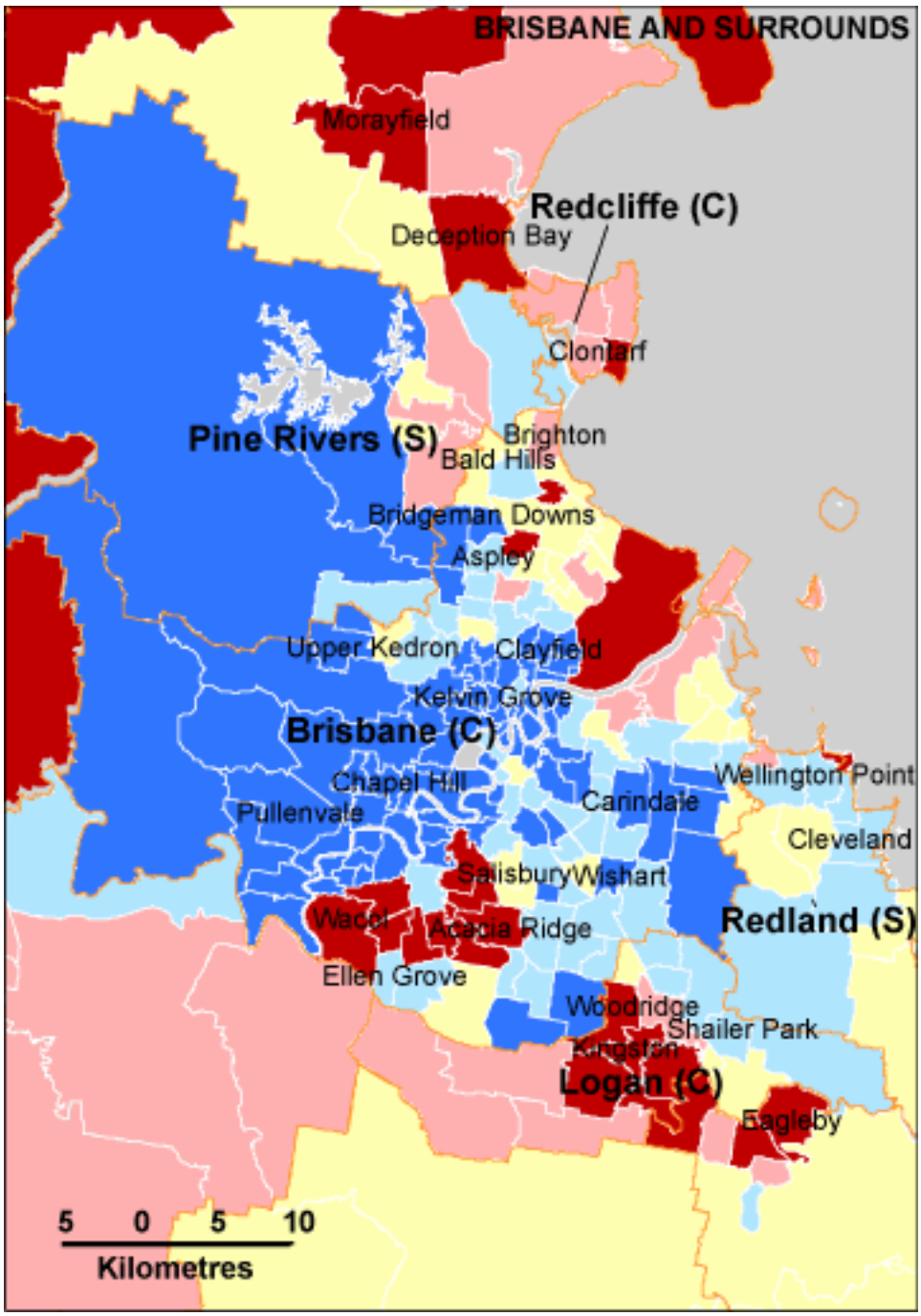
SC03.2 Graph of quintile distributions - SEQ and Balance of Queensland

Data Object 3: Map of SLAs by quintile

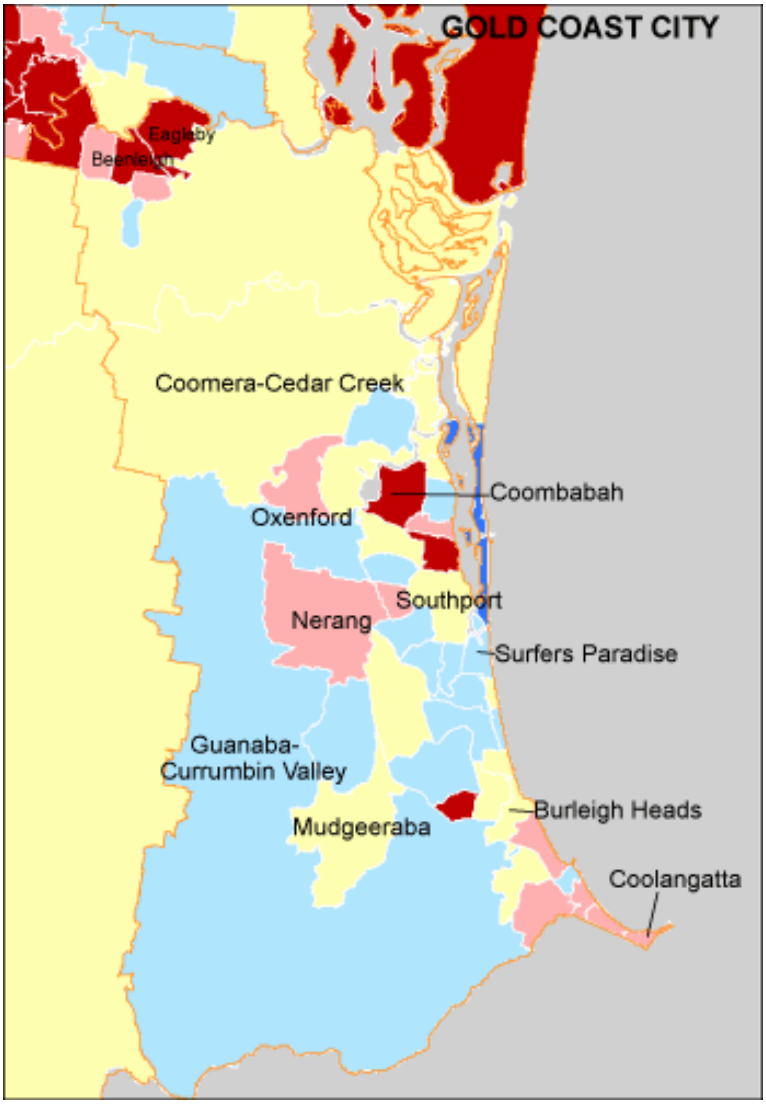
The map represents the spatial distribution of SLAs within SEQ by the five quintiles of SEIFA scores. The map shows that all but four of the most advantaged SLAs (Q5) fall within Brisbane LGA, most notably in the city inner and western suburbs. Brisbane also contains the majority of SLAs in the most disadvantaged quintile (Q1), although the Gold Coast City, Caboolture Shire and Logan Shire are also highly represented.



SC03.3 Map of SLAs by Quintile: SEQ overall



SC03.4 Map of SLAs by Quintile: Brisbane and surrounds



SC03.5 Map of SLAs by Quintile: Gold Coast

Links

ABS information paper *Census of Population and Housing: Socio-Economic Index for Areas, Australia* (Cat 2039.0).

Related indicators

SEQ SC01 Health and well-being
SEQ SC02 Social capital
SEQ SC04 Housing affordability
SEQ SC05 Crime
SEQ SC06 Supportive environments and healthy lifestyles
SEQ SC07 Health status

Related links

DLGPSR Planning information and forecasting

http://www.lgp.qld.gov.au/?id=88

SEQ SC04 Housing affordability

Private rental and house purchase affordability

State of Environment Theme: Human settlements

Results

Private rental market affordability

The private rental sector is a significant housing tenure with 26 % of Queensland households (over 350,000 households) currently renting their dwelling from a private landlord. Within SEQ over 260,000 households meet their housing needs in the private rental market.

Households seeking a private rental dwelling typically enter into a fixed term lease with the owner of the property at an agreed weekly rent. In Queensland the vast majority of dwellings in the private rental market are owned by small scale investors who engage property agents to undertake tenancy management responsibilities.

Renting provides many households with a degree of choice and flexibility about where they live and typically involves a trade off between amenity and cost. Rents are determined by a number of factors including:

- dwelling type, size and condition
- location of the dwelling in relation to employment, educational and recreational opportunities and transport services
- local market conditions and the demand for similar accommodation.

In some areas (including inner city and coastal locations) pressure on rental stock associated with population growth and development activity has contributed to significant rent increases during recent years. Low income households may be forced to expend a high proportion of their income on rent or move away from established networks and services in search of lower rents.

The Department of Housing considers that rents exceeding 30 % of gross income are unaffordable to low income households, and those who exceed this rate are considered to be in "housing stress". The number and proportion of low income households in housing stress provides an indication of the affordability of the private rental market in particular locations.

This indicator captures low income households in receipt of Centrelink benefits, and does not include the "working poor" or self funded retirees who are not in receipt of benefits. In that sense, the actual numbers and proportions of all low income households experiencing affordability problems are likely to be understated in this analysis. The number of households shown in these tables may also vary slightly from the real number of households, since only those clients whose rents have been verified are included.

Current median rents for three bedroom dwellings are also included to provide an indication of market rents in each local government area.

The Housing Dataset records income units (families and single persons) rather than households, so circumstances relate to these units and do not relate to the combined circumstances of group households. Counts of less than 20 are not included to protect confidentiality.

Home purchase affordability

Home ownership has been the most popular form of housing tenure in Australia for many years and residential property accounts for around two-thirds of all household wealth in

Australia. Over 62 % of Queensland households currently own or are purchasing their home. Home ownership provides many households with stability and security, and represents an effective means of accruing wealth for retirement.

Home ownership also generates wider benefits for local communities and society. Recent increases in land values and house prices throughout SEQ represent barriers to home ownership for many households including first home buyers, lone person and single parent households and low income households in general. Movements in purchase prices and mortgage repayments compared with average weekly household earnings provides a useful indicator of home purchase affordability in particular locations.

Local Government area		Median house price	Weekly purchase cost	Median household income
Beaudesert Shire	**2000**	$130,000	$249	$786
	2001	$125,000	$236	$826
	2002	$135,000	$250	$843
	2003	$162,000	$297	$857
	2004	$235,000	$451	$921
	2005	$277,000	$441	$965
	2006	$287,450	$467	$1,001
Boonah Shire	**2000**	$69,000	$127	$571
	2001	$69,250	$134	$600
	2002	$78,000	$138	$612
	2003	$93,000	$171	$623
	2004	$149,000	$253	$669
	2005	$164,500	$262	$701
	2006	$217,500	$346	$727
Brisbane City	**2000**	$169,000	$278	$828
	2001	$180,000	$274	$870
	2002	$223,000	$324	$888
	2003	$275,000	$401	$903
	2004	$348,000	$532	$971
	2005	$355,000	$565	$1,016
	2006	$370,000	$598	$1,054
Caboolture Shire	**2000**	$118,500	$219	$618
	2001	$118,000	$195	$649
	2002	$126,329	$202	$662
	2003	$165,000	$256	$673
	2004	$242,000	$390	$724
	2005	$260,000	$413	$758
	2006	$265,000	$431	$786
Caloundra City	**2000**	$155,000	$258	$552

Local Government area		Median house price	Weekly purchase cost	Median household income
	2001	$160,000	$248	$580
	2002	$194,000	$281	$592
	2003	$282,000	$394	$602
	2004	$365,000	$552	$647
	2005	$384,500	$612	$677
	2006	$383,000	$618	$703
Esk Shire	**2000**	$52,500	$141	$564
	2001	$58,000	$125	$593
	2002	$62,100	$129	$605
	2003	$73,000	$158	$615
	2004	$119,500	$239	$662
	2005	$145,000	$231	$693
	2006	$160,000	$260	$718
Gatton Shire	**2000**	$85,000	$169	$643
	2001	$85,000	$144	$676
	2002	$92,000	$163	$690
	2003	$98,000	$185	$701
	2004	$142,000	$241	$754
	2005	$187,000	$297	$790
	2006	$195,000	$315	$819
Gold Coast City	**2000**	$184,000	$309	$656
	2001	$190,000	$295	$689
	2002	$225,000	$334	$703
	2003	$280,000	$416	$715
	2004	$360,000	$568	$769
	2005	$375,000	$596	$805
	2006	$395,000	$635	$835
Ipswich City	**2000**	$84,000	$150	$715
	2001	$85,000	$134	$751
	2002	$895,000	$141	$766
	2003	$119,000	$175	$779
	2004	$185,000	$280	$838
	2005	$210,000	$334	$877
	2006	$230,000	$374	$910
Kilcoy Shire	**2000**	$77,000	$133	$562
	2001	$80,000	$138	$591
	2002	$81,000	$149	$603

Local Government area		Median house price	Weekly purchase cost	Median household income
	2003	$95,000	$181	$613
	2004	$150,000	$267	$659
	2005	$195,000	$310	$690
	2006	$198,500	$313	$716
Laidley Shire	**2000**	$73,000	$151	$582
	2001	$56,000	$122	$612
	2002	$67,000	$137	$624
	2003	$81,000	$152	$635
	2004	$122,500	$216	$683
	2005	$145,000	$231	$715
	2006	$173,500	$276	$741
Logan City	**2000**	$105,000	$183	$733
	2001	$112,000	$175	$770
	2002	$120,500	$186	$786
	2003	$145,000	$215	$799
	2004	$215,000	$327	$859
	2005	$233,000	$371	$899
	2006	$252,000	$406	$933
Maroochy Shire	**2000**	$159,000	$273	$595
	2001	$166,500	$258	$625
	2002	$192,000	$290	$638
	2003	$265,000	$386	$648
	2004	$355,000	$560	$697
	2005	$368,250	$586	$730
	2006	$383,500	$624	$757
Noosa Shire	**2000**	$180,000	$299	$600
	2001	$195,000	$286	$631
	2002	$226,950	$325	$644
	2003	$329,500	$438	$655
	2004	$430,000	$625	$704
	2005	$440,000	$700	$737
	2006	$440,000	$693	$764
Pine Rivers Shire	**2000**	$136,500	$241	$932
	2001	$137,000	$216	$979
	2002	$157,000	$241	$999
	2003	$197,000	$297	$1,016
	2004	$279,000	$434	$1,092

Local Government area		Median house price	Weekly purchase cost	Median household income
	2005	$296,000	$471	$1,143
	2006	$306,950	$496	$1,186
Redcliffe City	**2000**	$115,000	$190	$535
	2001	$126,000	$190	$562
	2002	$156,000	$223	$573
	2003	$210,000	$2,999	$583
	2004	$278,000	$420	$627
	2005	$285,000	$453	$656
	2006	$295,000	$476	$681
Redland Shire	**2000**	$150,000	$259	$804
	2001	$162,000	$248	$845
	2002	$185,000	$279	$862
	2003	$249,000	$364	$877
	2004	$322,500	$505	$943
	2005	$335,000	$533	$987
	2006	$350,000	$584	$1,024
Toowoomba City	**2000**	$112,000	$189	$634
	2001	$113,000	$174	$666
	2002	$123,500	$184	$680
	2003	$140,000	$208	$691
	2004	$187,000	$288	$743
	2005	$225,000	$358	$778
	2006	$240,000	$390	$807
Queensland	**2000**	$144,250	$241	$702
	2001	$147,000	$224	$738
	2002	$167,000	$247	$753
	2003	$200,000	$290	$766
	2004	$255,000	$389	$823
	2005	$280,000	$445	$862
	2006	$310,000	$500	$894

SC04.1 Home purchase affordability. Date range: 31/12/2000 - 31/12/2006

Local Government Area	Number of very low and low income households in housing stress	Proportion of very low and low income households in housing stress (%)	Median rent 3 bedroom stock (as at 31/12/05) ($)
Beaudesert Shire	677	30	250
Boonah Shire	58	18	180
Brisbane City	19,468	40	270
Caboolture Shire	3,020	30	220
Caloundra City	2,519	40	280
Esk Shire	227	26	180
Gatton Shire	189	23	190
Gold Coast City	16,209	47	300
Ipswich City	2,419	28	200
Kilcoy Shire	37	24	190
Laidley Shire	172	22	185
Logan City	3,169	29	230
Maroochy Shire	4,113	42	280
Noosa Shire	1,495	45	275
Pine Rivers Shire	1,482	31	245
Redcliffe City	1,513	34	230
Redland Shire	2,076	36	250
Toowoomba City	2,016	29	215
Queensland	77,683	34	245

SC04.2 Number and proportion of low income households in unaffordable private rental housing. Date range: 1/01/2005 - 31/12/2005

Related indicators

SEQ SC01

SEQ SC02

SEQ SC06

SEQ SC07

Related links

Qld Department of Housing

http://www.housing.qld.gov.au/index.htm

SEQ SC05 Crime

Crime rates in South East Queensland

State of Environment Theme: Human settlements

Results

Crime statistics are based on data obtained from the Queensland Police Service (QPS) at the Police Division level. Data at the local government area (LGA) level have been derived using a Police Division to LGA concordance. The data in SC05.1 comprises offences committed in Queensland in 2002-03 by both adults and juveniles. During 2002-03 the SEQ region recorded 22,960 offences against the person, 209,739 offences against property and 68,918 other offences. When compared with Queensland, the region recorded a higher rate for offences against property but a lower rate for both offences against the person and other offences.

The highest rate of offences against the person in the SEQ region was recorded in Ipswich City, with 1366 offences per 100 000 people. Logan City had the next highest rate (1256), followed by Redcliffe City (1090). The lowest rates were recorded in Beaudesert Shire (533) and Kilcoy Shire (605).

The highest rate of offence against property in the SEQ region was recorded in Logan City, with 11,177 offences per 100,000 people. Gold Coast City had the next highest rate (10,383), followed by Brisbane City (9186). The lowest rates were recorded in Boonah Shire (2450) and Beaudesert Shire (2962).

The highest rate for other offences in the SEQ region was recorded in Maroochy Shire, with 3358 offences per 100,000 people. Ipswich City had the next highest rate (3247), followed by Kilcoy City (3175). The lowest rates were recorded in Beaudesert Shire (1368) and Redland Shire (1479).

Local Government Area	Offences against the person		Offences against property		Other offences (b)	
	No.	rate (a)	No.	rate (a)	No.	rate (a)
Beaudesert Shire	289	533	1,607	2,962	742	1,368
Boonah Shire	63	746	207	2,450	163	1,929
Brisbane City	7,897	879	82,531	9,186	26,596	2,960
Caboolture Shire	1,199	1,047	8,161	7,129	2,632	2,299
Caloundra City	600	786	4,993	6,542	2,229	2,920
Esk Shire	159	1,075	643	4,347	369	2,497
Gatton Shire	135	866	504	3,234	374	2,400
Gold Coast City	4,218	991	44,170	10,383	12,938	3,041
Ipswich City	1,734	1,366	10,583	8,339	4,121	3,247
Kilcoy Shire	20	605	121	3,659	105	3,175
Laidley Shire	126	962	513	3,916	364	2,779
Logan City	2,107	1,256	18,755	11,177	5,193	3,094
Maroochy Shire	1,047	822	9,427	7,400	4,278	3,358
Noosa Shire	416	948	3,470	7,905	1,183	2,695
Pine Rivers Shire	827	675	6,561	5,358	1,968	1,608
Redcliffe City	542	1,090	4,348	8,745	1,396	2,807
Redland Shire	716	610	6,064	5,166	1,736	1,479
Toowoomba City	865	962	7,081	7,874	2,531	2,815
SEQ	**22,960**	**882**	**209,739**	**8,056**	**68,918**	**2,647**
Queensland		1,110		7,787		3,331

(a)Rates expresssed per 100,000 persons.
(b)Other offences include drugs, prostitution, drunkeness, good order, and stock related offences.
Source: Queensland Police Service unpublished data.

SC05.1 Offence number and rate for broad offence category, South East Queensland Region, 2002-03. Date range: 20/08/2001 - 20/08/2001

Related indicators

SEQ SC02

Related links

Qld Police Service - Reports and Publications

http://www.police.qld.gov.au/services/reportsPublications/default.htm

SEQ SC06 Supportive environments and healthy lifestyles

Environmental factors and lifestyle choices including: physical activity, supportive environments for physical activity, fruit and vegetable consumption, price of healthy food, breastfeeding, obesity and overweight prevalence, smoking, hazardous and harmful alcohol consumption, illicit drug use and sun protection

State of Environment Theme: Human settlements

Results

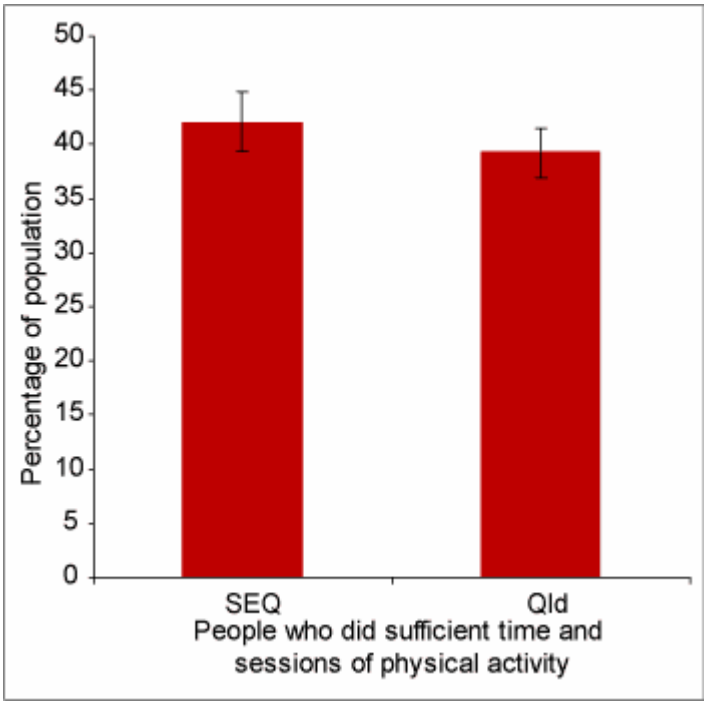
Ideally the places in which people live, work, study and play should support healthy lifestyles, and are instrumental in making the healthy choices the easy choices. Environmental assets and cultural habits that support healthy living are fundamental components for the development and sustainability of strong communities. Detailed analysis of health status and the determinants of health in Queensland have previously been reported: http://www.health.qld.gov.au/hdq.

Physical activity

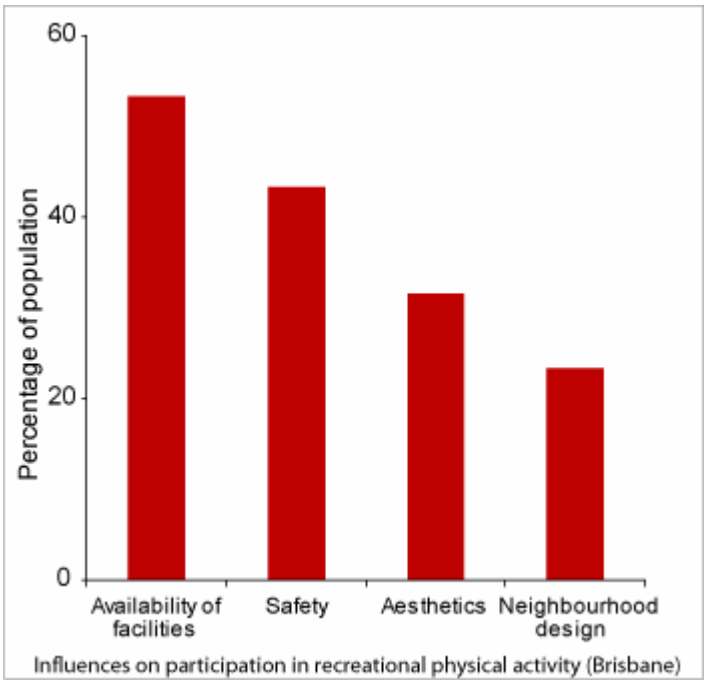
Physical inactivity was the second leading single cause of burden of disease in Australia in 1996, where 6.0 % of the total burden for males was attributed to physical inactivity and 7.5 % for females. In SEQ in 2004, only 42.1 % of people aged 18-75 undertook sufficient sessions and length of physical activity to achieve a health benefit. In SEQ sufficient exercise was less likely in areas of greater socioeconomic disadvantage.

In 2002, half the people who were surveyed in Brisbane (53.3 %) reported that availability of facilities influenced their participation in recreational physical activity. Specifically, easy access to bike paths, walking trails, gyms and swimming pools were reported as influencing physical activity levels. Physical activity levels were also influenced by safety (43.3 %), aesthetics (31.6 %) and neighbourhood design (23.3 %), specifically footpaths, lighting, hills, local shops and services.

Increasing physical activity in communities is linked to the physical environment as well as behavioural and social determinants. Proximity and density of places for physical activity within neighbourhoods is associated with physical activity and participation. Evidence is accumulating that indicates the importance of accessibility to facilities such as cycleways, footpaths, health clubs and swimming pools. In addition, people living in 'traditional' neighbourhoods, characterised by higher residential density, mixture of land uses and grid-like street patterns with short block lengths, engage in more walking and cycling trips for transport than people living in sprawling neighbourhoods.



SC06.1 Sufficient physical activity-prevalence. Date range: 27/04/2004 - 28/06/2004



SC06.2 Physical activity supportive environments. Date range: 1/01/2003 - 31/12/2003

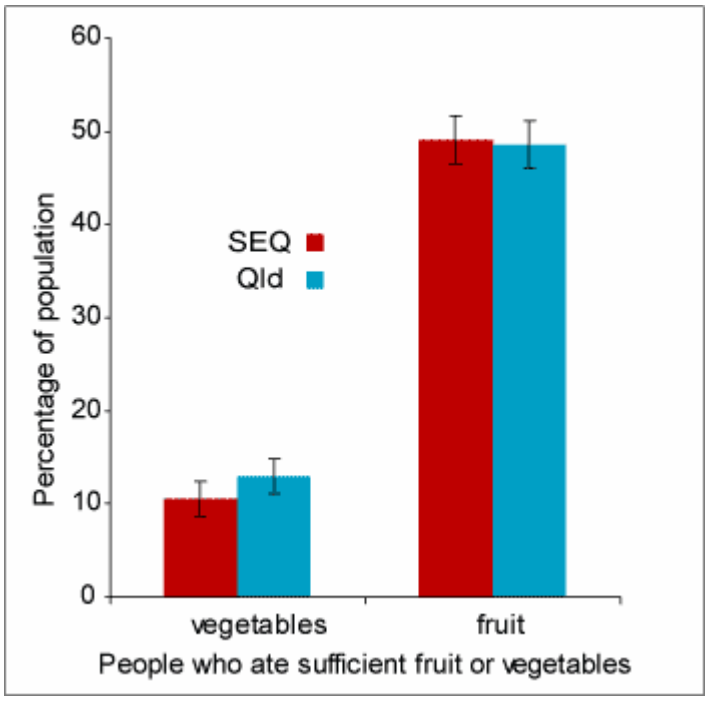
Healthy food

In Australia in 1996, inadequate fruit and vegetable consumption was estimated to cause 3.0 % of the total burden of disease for males and 2.4 % for females. The 1999 Australian Guide to Healthy Eating recommends for adults two serves of fruit and five serves of vegetables daily for optimum health benefits. Only 10.5 % of people aged 18 and older living in SEQ ate sufficient vegetables and 49.1 % ate sufficient fruit.

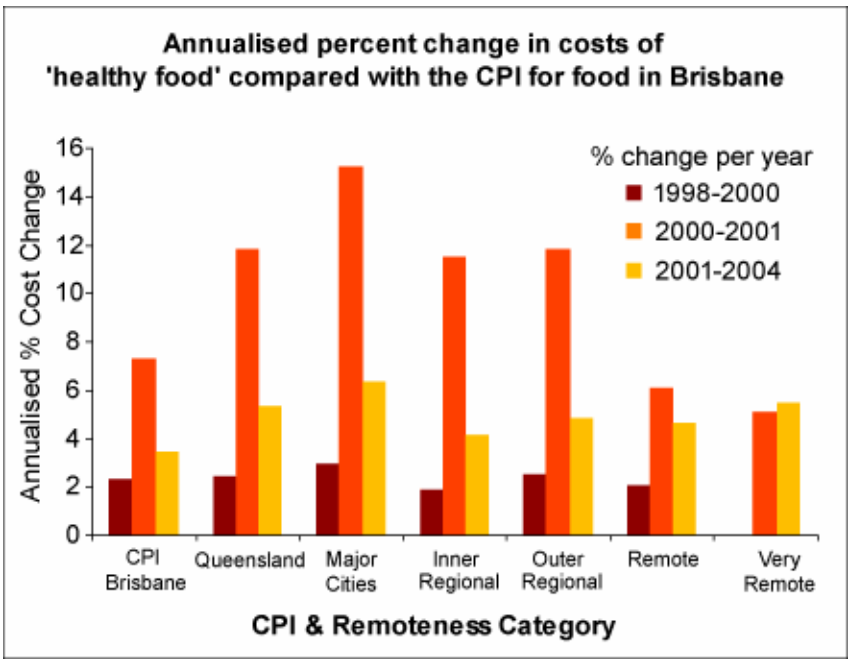
Price is one of the most important factors influencing consumers' choice of food items to buy. In Queensland in 2004, the cost of basic healthy food continued to increase at a rate higher than the Consumer Price Index. In contrast, less healthy items, including soft drinks have increased less in price since 1998. In 2004 in the very remote areas of Queensland, healthy food costs 30 % more than in major cities and 14 % more in remote areas. Transportation costs, and doubling handling of produce, may be key factors contributing to this price disparity. In addition, access to healthy food declines with remoteness in Queensland.

Overwhelming evidence of the health benefits of breastfeeding, including obesity prevention in later life, means that breast feeding should be promoted as the social norm, with support and the provision of adequate facilities in communities and workplaces. It is recommended that infants be exclusively breast fed for the first six months of life. The National Health and Medical Research Council of Australia objective is that 80 % of infants are breast fed at six months of age. In 2003, 56 % of infants in the highly accessible areas of Queensland were breast fed to some extent at six months of age.

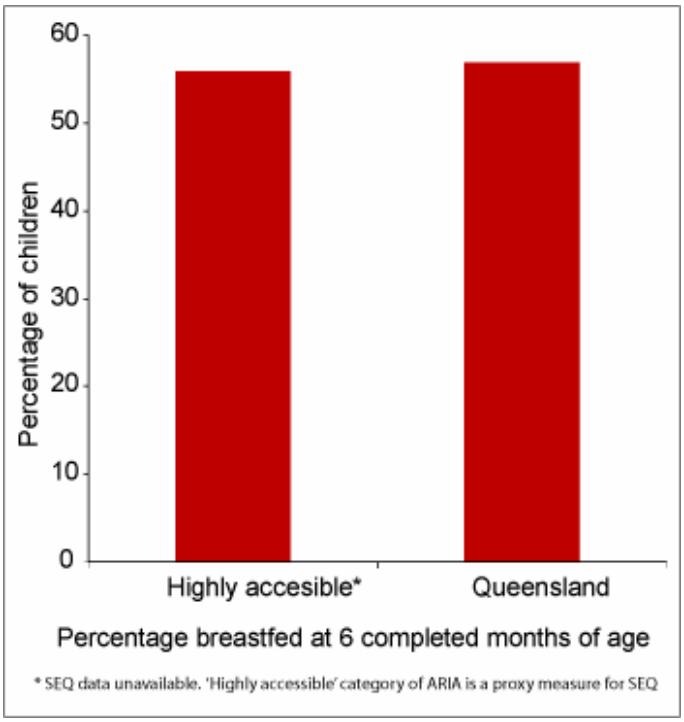
Adequate consumption of water is necessary for good health, where the volume of water required varies with climate and level of physical activity. The provision of adequate access to water is necessary in public facilities, service precinct and along active transport routes.



SC06.3 Fruit and vegetable consumption. Date range: 23/05/2005 - 14/07/2005



SC06.4 Price of healthy food. Date range: 1/01/1998 - 31/12/2004



SC06.5 Breastfeeding at 6 months. Date range: 10/03/2003 - 27/05/2005

Healthy weight

In Australia in 1996, overweight and obesity were the cause of 4.4 % of the total burden for males and 4.3 % for females. By self reported body mass index, 50.7 % of adults in SEQ aged 18-75 years were overweight or obese in 2004. In SEQ obesity prevalence was higher in areas of greater socioeconomic disadvantage.

While no recent Queensland, nor SEQ, specific data is available on growth and overweight/obesity in children and adolescence, national data highlights the magnitude of this health problem. In Australia in 1995, among 2-18 year olds, 21 % of girls and 20 % of boys were overweight. The prevalence of overweight doubled and the prevalence of obesity trebled between 1985 and 1995. More recent data from South Australia found that approximately 20 % of four-year-old children were overweight in 2002, an increase of 60 % since 1995.

The underlying determinants of the current epidemic of obesity are related to environmental, technological, social and economic changes in society. Urban design, ready availability of inexpensive and heavily marketed energy-dense foods and drinks, globalisation, our reliance on cars and consumer changes, have all contributed to reduced physical activity and to increased consumption of energy-dense foods.

Body Mass Index category	SEQ			Qld		
	%	95% CI		%	95% CI	
		lower	upper		lower	upper
Underweight	11.4	9.6	13.4	10.2	8.8	11.8
Acceptable weight	38.1	35.4	40.8	37.6	35.4	39.8
Overweight	33.9	31.3	36.5	34.5	32.4	36.6
Obese	15.1	13.2	17.2	16	14.4	17.8
Severely Obese	1.7	1.1	2.5	1.7	1.2	2.4

Source: Qld Health 2004 Omnibus telephone survey

SC06.6 Overweight and obesity prevalence (people aged 18-75 years). Date range: 27/04/2004 - 28/06/2004

Smoking

Tobacco smoking was the leading single cause of the burden of disease in Australia in 1996, where 12.1 % of the total burden for males was attributed to tobacco smoking and 6.8 % for females. In the highly accessible areas of Queensland, the proportion of males, 18 years or older, who smoked daily in 2001 was 21.4 %, compared with the Queensland average of 24.6 %. The corresponding figures for females aged 18 years and older were 17.2 % in SEQ compared to the Queensland average of 19.7 %. The differences between males and females and between SEQ and Queensland were not significant.

	Male % (95% CI)	Female % (95% CI)
Aged 18+ years		
Qld	24.6 (21.5-27.7)	19.7 (17.2-22.2)
SEQ*	21.4 (17.9-24.9)	17.2 (14.5-19.9)
Aged 14-17 years		
Qld	13.5 (2.9-24.1)	13.5 (3.5-23.5)

CI – confidence interval

Source: National drug strategy household survey 2001

* proxy for SEQ using *highly accessible* category of the accessibility/remoteness scale

SC06.7 Current smokers (persons aged 14 years and over). Date range: 1/01/2001 - 31/12/2001

Alcohol

Alcohol consumption can both enhance and harm health. In Australia in 1996, alcohol consumption was the cause of 4.2 % of the total burden of disease for males, which comprised 6.6 % attributed to alcohol harm and -2.4 % to alcohol benefit. In SEQ in 2001, the proportion of males, 18 years and older, who usually drank hazardous or harmful levels of alcohol was 25.9 % (14.3 % for hazardous and 11.6 % for harmful) compared with the Australian average of 28.3 %. The corresponding figures for females aged 18 years and over were 28.1 % in SEQ compared to the Queensland average of 28.7 %. The differences between males and females and between SEQ and Queensland were not significant.

	Age range (years)	Region	Male			Female		
			%	95% CI		%	95% CI	
				Lower	Upper		Lowe	Upper
Hazardous alcohol consumption								
	18+	Qld	14.8	12.2	17.4	16.6	14.3	18.9
	18+	SEQ*	14.3	11.4	17.2	16.9	14.2	19.6
	14-17	Qld	6.6	1.1	14.3	15.3	4.8	25.8
	18-29	Qld	24.5	16.5	32.5	23.7	17.8	29.6
Harmful alcohol consumption								
	18+	Qld	13.5	11.0	16.0	12.1	10.0	14.2
	18+	SEQ*	11.6	8.9	14.3	11.2	8.9	13.5
	14-17	Qld	19.1	6.9	31.3	30.3	16.9	43.7
	18-29	Qld	22.8	15.0	30.6	33.4	26.9	39.9

Source: National drug strategy household survey 2001

* proxy for SEQ using *highly accessible* category of the accessibility/remoteness scale

SC06.8 Hazardous and harmful alcohol consumption (in persons aged 14 years and older). Date range: 1/01/2001 - 31/12/2001

Illicit drugs

In Australia in 1996, illicit drugs were the cause of 2.2 % of the total burden of disease for males and 1.3 % for females. In SEQ, the proportion of males 18 years and older who used any illicit drug in the 12 months prior to the 2001 survey was 19.6 %, the Queensland average was 19.0 %. The corresponding figures for females aged 18 years and older were 13.2 % in SEQ, similar to the Queensland average of 13.0 %. Prevalence in males was significantly greater than for females in SEQ and Queensland in 2001.

	Male			Female		
	%	95 % Confidence levels		%	95 % Confidence levels	
		Lower	Upper		Lower	Upper
Aged 18+ years						
Qld	19.0	16.2	21.9	13.0	10.9	15.1
SEQ*	19.6	16.3	23.0	13.2	10.8	15.6
Aged 18-24 years						
Qld	42.4	9.5	55.3	32.2	23.1	41.3

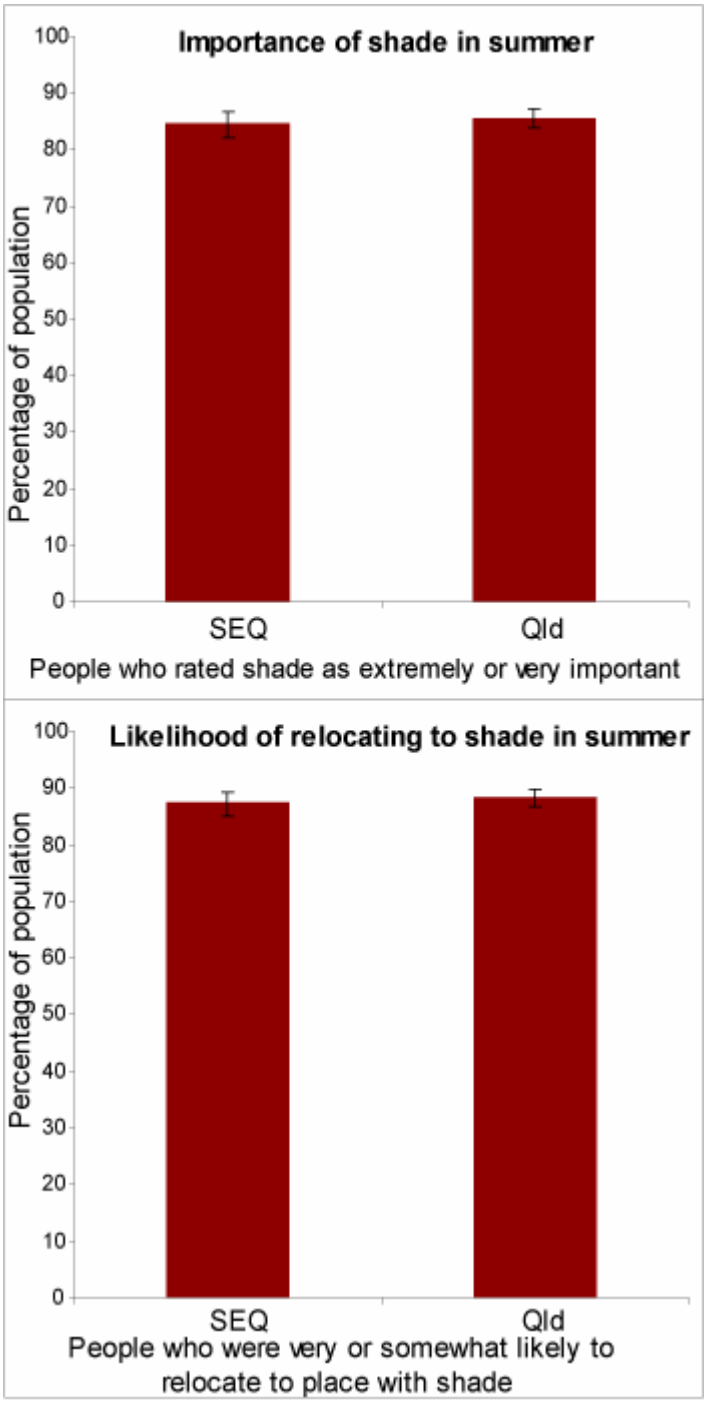
Source: National drug strategy household survey 2001
* proxy for SEQ using *highly accessible* category of the accessibility/remoteness scale

SC06.9 Illicit drug use. Date range: 1/01/2001 - 31/12/2001

Sun protection

Queensland has the highest rates of melanoma incidence and mortality of any country or Australian state. Exposure to sunlight is the primary risk factor for both melanocytic and non-melanocytic skin cancer. Exposure to the sun in childhood and teenage years potentially accounts for a large proportion of skin cancer risk.

In SEQ 84.6 % of people 18 years and older rate the importance of shade being available in a park in summer as being extremely and very important. In summer 87.4 % of people 18 years and older in SEQ would be very or somewhat likely to go to another place with shade if there is no shade where they were. The rates for all Queenslanders were similar.



SC06.10 Sun protection. Date range: 25/02/2005 - 14/04/2005

Related indicators

SEQ SC01; SEQ SC02; SEQ SC07

Related links

Health Determinants Queensland 2004

http://www.health.qld.gov.au/hdq/

SEQ SC07 Health status

Health status indicators for South East Queensland

State of Environment Theme: Human settlements

Results

Many factors determine and influence health. It is now understood that health status results from a complex interaction of social, economic, environmental, behavioural and genetic factors. It reflects the accumulation of exposures to both advantageous and disadvantageous experiences and environments over varying stages of life. In recent years, a life course approach to the study of health and illness has helped to explain the existence of wide socioeconomic differentials in adult mortality and morbidity rates. Evidence suggests that such exposures accumulate throughout life and increase the risk of illness and premature death. Exposure to disadvantageous experiences and environments does not equally impact on all people, or all stages through the life cycle. Some determinants have an immediate impact on health, while other early life or continuous physical and psychosocial exposures have a lag time and manifest in compromised health status later in life.

Most Queenslanders can expect to live relatively long and healthy lives. In Queensland in 1999-2001, life expectancy at birth was 76.9 years for males and 82.5 years for females, similar to that of Australia. Australians continue to have one of the highest life expectancies in the world. However, socioeconomic differences are evident, with generally longer life expectancy in areas of lower socioeconomic disadvantage in Queensland. In 2002, Indigenous life expectancy at birth was about 20 years less than for the total population.

The principal summary measures of population health used internationally include death rates from all causes and from major causes such as heart disease and cancers, and infant mortality rates. In more recent years, 'Burden of Disease' methodology has been used to examine non-fatal health outcomes as well. This approach highlights the impact of major killers such as heart disease and cancers, but also demonstrates a higher burden for mental health and musculoskeletal conditions than death rates alone would indicate.

Australia's death rates are second lowest in the world after Japan. Queensland's rates are very similar to the national rate. However, when the best performing countries are compared across selected causes of death, much of the potential for gain in Australia, and especially in Queensland, appears to be in heart disease. Thus targeted efforts to reduce overweight and obesity, increase physical activity and improve nutrition will result in significant improvements in mortality.

Mortality rates in SEQ are significantly lower than the state average. Comparison between rates is determined using standardised ratios, where the value for Queensland is set at 100, and regional ratios compared to that point. Ratios for all reported major causes of death are lower in SEQ, excluding diseases of the respiratory system. In 2000, an estimated 7.0 % of adults aged 25 years and older in Queensland had diabetes, based on blood sugar levels. Self reported diabetes prevalence has increased dramatically in the past two decades. Diabetes prevalence for SEQ cannot be determined. Approximately two-thirds of deaths due to injury are for males. One third of injury deaths are due to road traffic accidents. For Queenslanders aged 65 years and older, falls are a principal cause of injury death.

There is significant variation in death rates within Queensland and even within SEQ. Health inequalities are often evident in conditions which are largely preventable - such as heart disease, the preventable cancers, diabetes and injury. When the region is divided on the basis of advantage and disadvantage, the most advantaged areas have significantly

lower mortality while the more disadvantaged areas are significantly higher - usually in the range of an excess between 10 and 60 %.

By almost any measure the heath of Indigenous Queenslanders is poorer than that of non-Indigenous people. Deaths rates for Indigenous Australians, both urban and remote, were significantly higher than for non-Indigenous people. Mortality rates due to injury, diabetes, respiratory disease and cardiovascular disease are especially high for Indigenous peoples in Queensland.

The infant mortality rate in SEQ is similar to that of Queensland. However, within SEQ there is a two fold excess in infant mortality rate in those areas of high socioeconomic disadvantage. In Queensland the Indigenous infant mortality rate is more than twice that of non-Indigenous children. A low infant mortality rate is a major contributor to increased life expectancy.

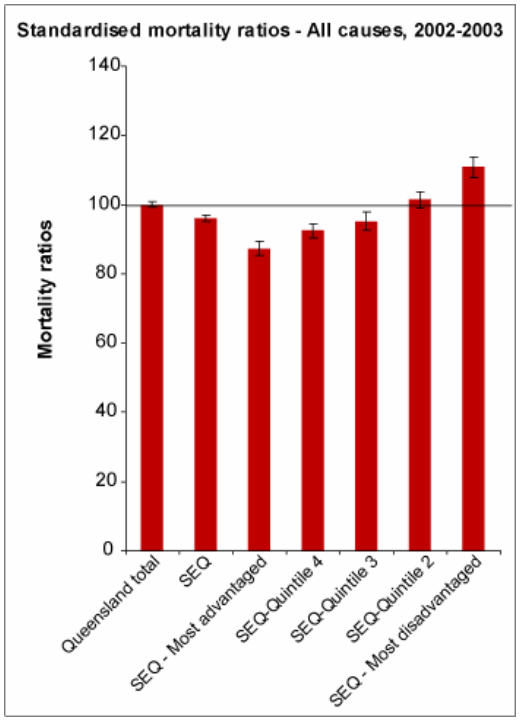
Notification numbers and rates are presented for selected communicable diseases that pose risk of infection in areas of new development. Notifications for Barmah Forest virus and Ross River virus vary by year depending on climate, presence of host/reservoir and vector control activities. Both dengue fever virus and malaria, which have caused local outbreaks in north Queensland in the five years (82 % of the 275 notifications for dengue fever in 2004 were locally acquired), show potential for the disease to move south with a suitable mosquito vector, breeding habitats (i.e. an increase in provision of domestic rainwater water tanks) and increased international travel/tourism. (Note: mosquitos are a source of both disease and nuisance biting - refer to Queensland Health "*Guidelines to minimise mosquito and biting midge problems in new development areas*"). Q Fever, while decreasing in the last couple of years through effective screening and vaccination of high-risk groups, poses an increased risk for infection in areas of new development that encroach on rural environments, particularly areas with close contact with farm stock (farms, cattle yards, abattoirs etc).

Child safety and child abuse are serious issues that impact on the health and wellbeing of Queensland children. The Department of Child Safety was created in September 2004 to strengthen the government's approach to child protection issues. Information about Queensland's child protection system at both state and zonal level is available publicly in the department's Annual Report "*Child Protection Queensland Performance Report"*; and nationally in the "*Report on Government Services"* and in the Australian Institute of Health and Welfare's annual publication titled "*Child Protection Australia*" (http://www.aihw.gov.au/publications/index.cfm/title/10095).

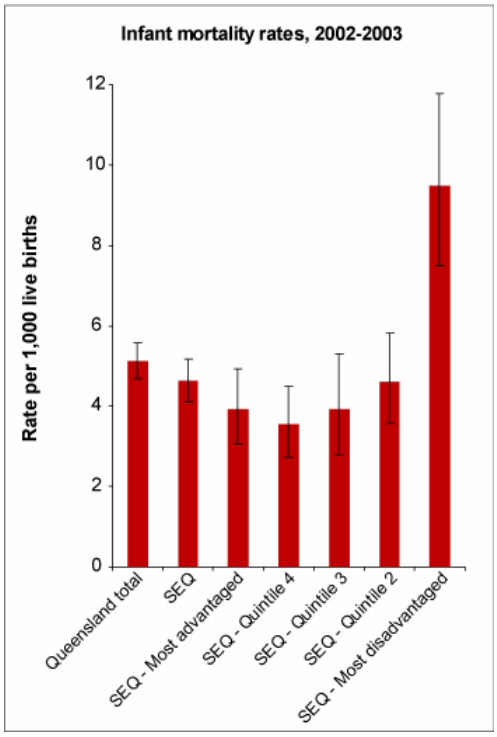
In recent analysis, rates of births to teenage mothers and child abuse were found to be key social indicators of vulnerability amongst children and young people in Queensland. This finding is in line with other research into at-risk communities. The recent Queensland analysis found areas with high rates of child abuse also had high teenage pregnancy rates. Generally, these localities also experienced comparatively high levels of socio-economic disadvantage. Conversely, areas where there were low rates of child abuse also had low teenage pregnancy rates.

In some areas of Queensland, births to teenagers are a pressing problem, especially because they can perpetuate a cycle of limited educational opportunities, social isolation and limited long term opportunities for employment and economic independence. The considerable variation in the rate of births to within Local Government Areas of SEQ reflects these key sociodemographic issues. In addition Indigenous women give birth at younger age than non-Indigenous women in Queensland. Indigenous females under the age of 15 were 11 times more likely to become mothers than non-Indigenous females of the same age.

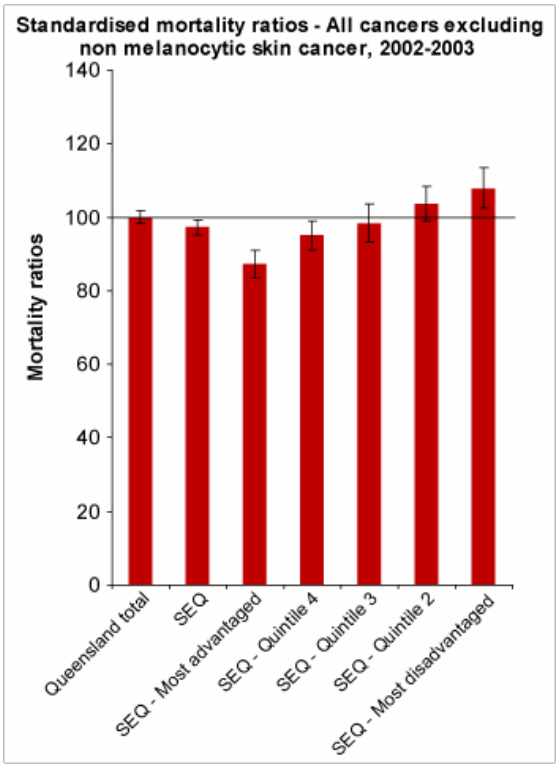
Detailed analysis of health status and the determinants of health in Queensland have previously been reported at http://www.health.qld.gov.au/hdq/ and http://www.health.qld.gov.au/hic/MAY_VE1a.pdf.



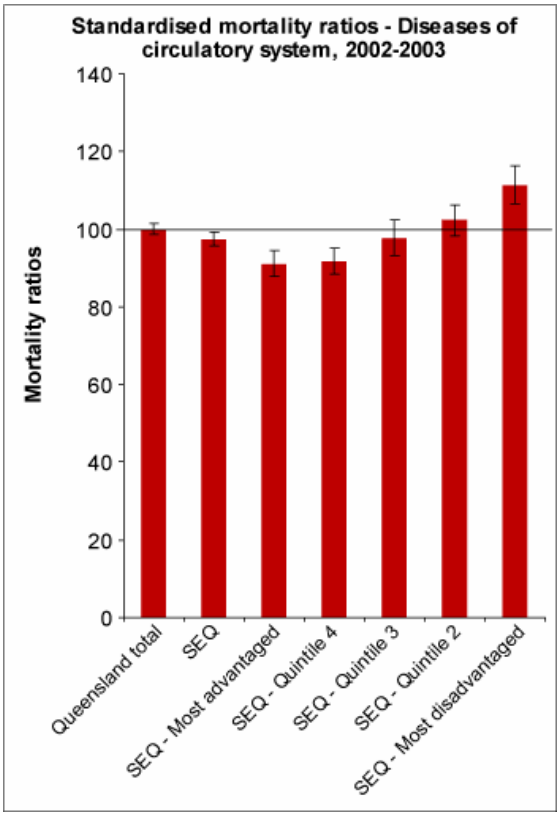
SC07.1 All cause mortality. Date range: 1/01/2002 - 31/12/2003



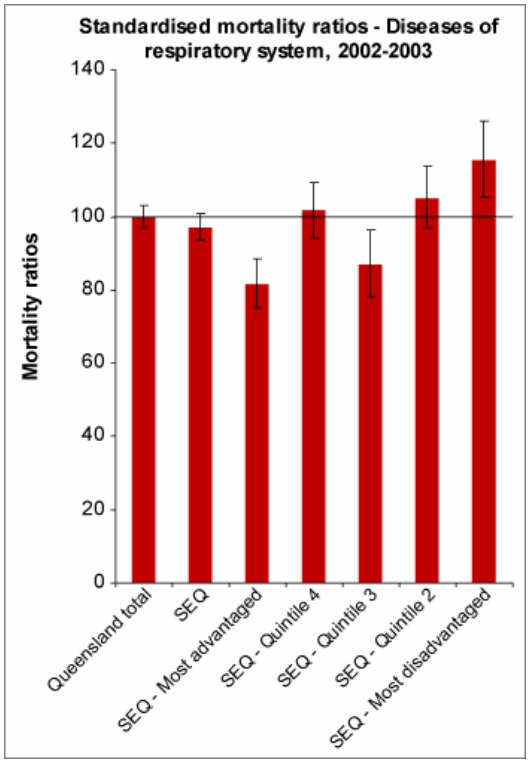
SC07.2 Infant mortality. Date range: 1/01/2002 - 31/12/2003



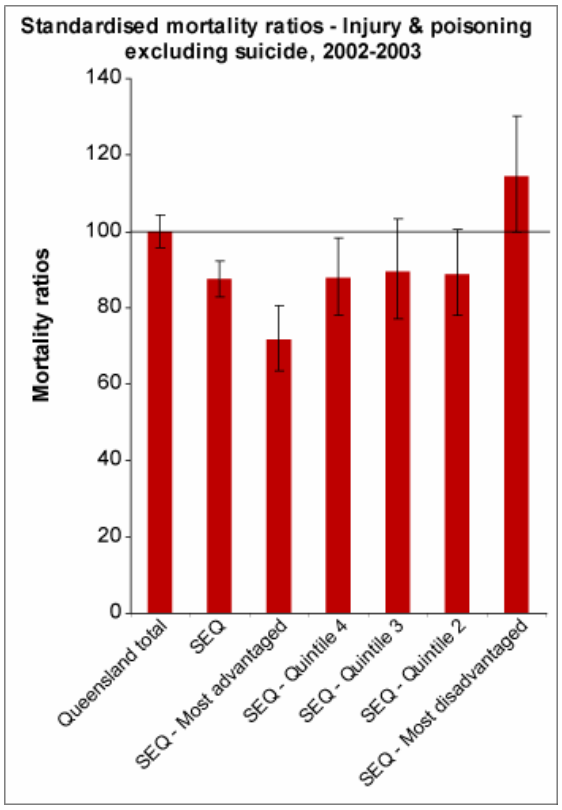
SC07.3 All cancer mortality. Date range: 1/01/2002 - 31/12/2003



SC07.4 Circulatory disease mortality. Date range: 1/01/2002 - 31/12/2003



SC07.5 Respiratory disease mortality. Date range: 1/01/2002 - 31/12/2003

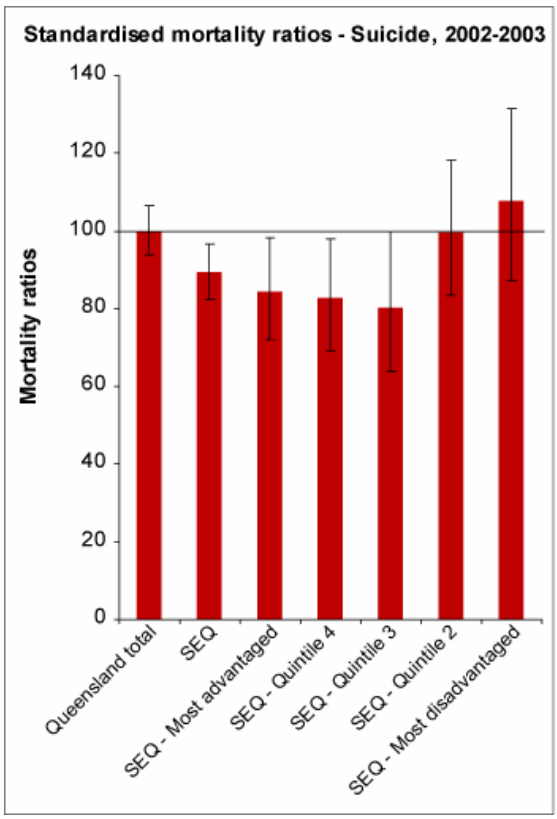


SC07.6 Injury mortality (excluding suicide). Date range: 1/01/2002 - 31/12/2003

Local Government Area	Barmah Forest virus		Ross River virus		Q fever	
	N	Rate#	N	Rate#	N	Rate#
Beaudesert Shire	<5	5.1	47	79.1	<5	3.4
Boonah Shire	<5	23.3	21	245.1	<5	11.7
Brisbane City	69	7.2	340	35.5	10	1.0
Caboolture Shire	24	18.9	78	61.5	<5	0.8
Caloundra City	16	18.5	34	39.3	<5	1.2
Esk Shire	6	39.5	33	217.0	<5	6.6
Gatton Shire	<5	6.1	31	190.3	<5	18.4
Gold Coast City	24	5.1	120	25.6	7	1.5
Ipswich City	11	8.1	92	67.9	<5	2.2
Kilcoy Shire	<5	57.7	<5	86.5	<5	0.0
Laidley Shire	<5	22.5	24	179.8	<5	7.5
Logan City	11	6.3	51	29.4	<5	1.2
Maroochy Shire	34	24.1	76	53.9	<5	1.4
Noosa Shire	16	33.6	51	107.1	<5	2.1
Pine Rivers Shire	12	8.6	84	60.3	<5	0.7
Redcliffe City	<5	7.6	14	26.8	<5	1.9
Redland Shire	17	13.3	33	25.8	<5	2.3
Toowoomba City	<5	3.2	24	25.5	<5	3.2
South East Queensland	**258**	**9.7**	**1156**	**43.4**	**43**	**1.6**
Queensland	**584**	**15.0**	**2009**	**51.8**	**162**	**4.2**

Rate /100,000 people is based on 2004 Estimated Resident Population (ERP), supplied by the Australian Bureau of Statistics (ABS) . Australian Standard Geographical Classification (ASGC) 2004 Edition [Based on Census 2001 counts]

SC07.7 Notifications and notification rates (/100,000 people) for South East Queensland Local Government Areas (based on persons usual place of residence) in 2004 for Barmah Forest virus, Ross River virus and Q fever. Date range: 1/01/2004 - 31/12/2004



SC07.8 Suicide. Date range: 1/01/2002 - 31/12/2003

Births to teenage mothers in South East Queensland, by LGA, 200 to 2002						
Local Government Area	**Births to teen mothers (Number: 15-19 yrs)**			**Births per 1,000 females aged 15-19 yrs**		
	2000	**2001**	**2002**	**2000**	**2001**	**2002**
Beaudesert Shire	42	51	30	22.0	26.6	15.1
Boonah Shire	5	<5	<5	18.1	10.9	11.3
Brisbane City	418	408	394	13.1	12.6	12.2
Caboolture Shire	116	140	138	29.4	34.5	34.4
Caloundra City	43	33	47	18.9	14.1	19.7
Esk Shire	14	18	18	30.6	37.5	38.5
Gatton Shire	17	17	22	24.3	24.2	27.8
Gold Coast City	214	229	206	16.1	16.6	14.7
Ipswich City	192	177	195	40.0	36.6	40.0
Kilcoy Shire	<5	5	<5	20.0	42.7	15.7
Laidley Shire	22	17	9	51.6	38.5	21.3
Logan City	231	212	272	32.8	29.7	38.6
Maroochy Shire	81	68	74	19.8	15.8	17.1
Noosa Shire	16	18	14	13.3	14.6	10.6
Pine Rivers Shire	61	54	50	13.5	11.8	10.4
Redcliffe City	51	58	47	30.7	34.5	28.7
Redland Shire	70	80	60	16.0	18.0	13.3
Toowoomba City	87	99	102	21.0	23.0	23.1
SEQ	**1682**	**1687**	**1683**	**19.3**	**18.9**	**18.7**
State Average				30.3	29.3	28.4
Source: Perinatal Data Collection, Queensland Health; Australian Bureau of Statistics, Population Estimates by Age and Sex, Australia and States (Cat. No. 3235.0.55.001). (COMSIS - Department of Communities Statistical Information System database maintained by the Office of Economic and Statistical Research (OESR).)						

SC07.9 Teenage births. Date range: 1/01/2000 - 30/12/2002

Related indicators

SEQ SC01; SEQ SC02; SEQ SC06

Related links

Child protection Australia 2003-2004
http://www.aihw.gov.au/publications/index.cfm/title/10095
The State of Health of the Queensland Population
http://www.health.qld.gov.au/hic/
Health Determinants Queensland 2004
http://www.health.qld.gov.au/hdq/

SEQ SC08 Cultural heritage

Number of places entered in the Queensland Heritage Register in South East Queensland by Local Government Area as at 30 June 2005

State of Environment Theme: Natural and cultural heritage

Results

The Environmental Protection Agency (EPA) maintains records of historical heritage places throughout Queensland. The Queensland Heritage Register is established under the *Queensland Heritage Act 1992* (the Heritage Act). Places entered in the Queensland Heritage Register must be of cultural heritage significance and meet one or more of the specific criteria set out in the Heritage Act.

At 30 June 2005, 1443 places in Queensland were entered in the Register. Of these places, a total of 726 (about 50 %) are in SEQ.

The Brisbane City area has by far the highest number of State heritage registered places of all local governments in SEQ (472, or 32.6 %, nearly one third of the total number of places entered in the Queensland Heritage Register). The SEQ local government area with the next highest number of State heritage registered places is Ipswich, with 75 (5.2 %), followed by Toowoomba, with 62 (4.3 %).

This pattern has changed only slightly from that observed in State of the Environment Queensland 2003, where the figures were as follows: Brisbane: 427 (32.1 %), Ipswich: 71 (5.3 %), and Toowoomba: 62 (4.7 %). There is therefore a slight increase in the percentage of places entered in Brisbane City between 2002 and 2005, compared with a decrease in the other two shires.

The distribution of places entered in the Queensland Heritage Register in SEQ reflects the pattern of European settlement in the region.

LGA	Provisional	Permanent	Percentage of total places in Register
Beaudesert Shire Council	0	7	0.5
Boonah Shire Council	0	7	0.5
Brisbane City Council	1	471	32.6
Caboolture Shire Council	0	1	0.1
Caloundra City Council	0	5	0.3
Esk Shire Council	0	16	1.1
Gatton Shire Council	0	8	0.6
Gold Coast City Council	0	15	1.0
Ipswich City Council	0	75	5.2
Kilcoy Shire Council	0	2	0.1
Laidley Shire Council	0	8	0.6
Logan City Council	0	6	0.4
Maroochy Shire Council	0	12	0.8
Noosa Shire Council	0	4	0.3
Pine Rivers Shire Council	0	3	0.2
Redcliffe City Council	0	2	0.1
Redland Shire Council	0	21	1.5
Toowoomba City Council	0	62	4.3
Total	**1**	**725**	**50.2**
Source: EPA			

SC08.1 Provisional and permanent entries in the Queensland Heritage Register in South East Queensland as at 30 June 2005. Date range: 1/01/1992 - 30/06/2005

Related links

EPA - Cultural heritage

http://www.epa.qld.gov.au/cultural_heritage/

Desired Regional Outcome 7—Engaging Aboriginal & Torres Strait Islander Peoples

Aboriginal and Torres Strait Islander peoples are actively involved in community planning and decision-making processes and Aboriginal Traditional Owners are engaged in business about their country.

SEQ AT01 Social and economic equity—Indigenous

Educational attainment, housing, median income and labour force participation for Indigenous people

State of Environment Theme: Human settlements

Results

Social and economic equity information reveals the extent of the challenge in eliminating Indigenous disadvantage. Education, employment and income indicators can demonstrate the impact of programme and policy interventions in the SEQ region and raise the transparency of state and local governments' performance.

Information about social and economic equity is used to ensure service providers perform better and are more accountable to the communities they serve. In other words, they must raise the standard of services provided and continue to ensure these services meet their clients' needs. A key factor in meeting clients' needs will be ensuring services are responsive and sensitive to cultural considerations as well as social and economic considerations.

The indigenous regional profiles work includes aspects of educational attainment; housing (including public and private, ownership, overcrowding, homelessness and affordability); median income and labour force participation. It is envisaged that information on all of these aspects will be available for the 2008 State of the Region Report.

Educational attainment

Data on non-school qualifications are collected at the time of the Census of Population and Housing, conducted by the Australian Bureau of Statistics every five years. These qualifications include postgraduate degree, graduate diploma and graduate certificate, bachelor degree, advanced diploma, diploma and certificate.

At the time of the 2001 Census there were 4 651 Indigenous persons with a non-school qualification in the SEQ region, 21.0 % of the Indigenous population aged 15 years and over. This proportion was significantly lower than for the non-Indigenous population (35.7 %). However, the proportions for Indigenous and non-Indigenous persons in the region were higher than those in Queensland as a whole.

Within the SEQ region the highest proportion of Indigenous persons aged 15 years and over with a post-school qualification was recorded in Noosa Shire (28.4 %), followed by Redland Shire (24.4 %) and Brisbane City (23.9 %). The lowest proportions were recorded in Toowoomba City (14.1 %) and Ipswich City (14.8 %).

Local government area	Number of people with a post-school qualification		Percentage of people with a post-school qualification (a)	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Beaudesert (S)	87	12,070	17.2	32.2
Boonah (S)	10	1,445	16.9	24.5
Brisbane (C)	1,827	278,162	23.9	41.2
Caboolture (S)	210	22,636	17.4	28.3
Caloundra (C)	105	18,155	22.0	32.2
Esk (S)	23	2,506	17.6	25.0
Gatton (S)	21	2,811	16.9	26.3
Gold Coast (C)	647	108,378	23.0	34.0
Ipswich (C)	301	24,857	14.8	28.8
Kilcoy (S)	9	526	20.0	23.0
Laidley (S)	27	2,137	17.8	24.5
Logan (C)	386	32,718	18.2	28.4
Maroochy (S)	199	34,214	23.7	35.9
Noosa (S)	61	13,134	28.4	38.2
Pine Rivers (S)	181	31,095	22.5	36.4
Redcliffe (C)	118	10,741	22.1	28.7
Redland (S)	230	29,201	24.4	34.7
Toowoomba (C)	209	20,185	14.1	31.9
SEQ region	**4,651**	**644,971**	**21.0**	**35.7**
Queensland	9,871	897,914	15.1	34.3

AT01.1 Non-school qualification by Indigenous status, local government areas. Date range: 20/08/2005 - 20/08/2005

Related links

DATSIP - Statistics

http://www.datsip.qld.gov.au/resources/statistics.cfm

SEQ AT04 Cultural heritage - indigenous

This indicator measures the extent to which the land in Queensland has been surveyed for the presence or absence of Aboriginal or Torres Strait Islander cultural heritage. The indicator includes the amount of land area covered by registered Cultural Heritage Bodies and the area covered by registered Cultural Heritage Management Plans.

State of Environment Theme: Nat cult heritage

Results

The *Aboriginal Cultural Heritage Act 2003* was proclaimed on the 16th April 2004. The legislation is administered by the Cultural Heritage Coordination Unit of Natural Resources and Water.

On the 16th April 2004 Duty of Care Guidelines were gazetted as required under Section 28 of the Act. On 22nd April 2005 Cultural Heritage Management Plan Guidelines were gazetted as required under Section 85 of the Act.

Procedures for the appropriate handling of Aboriginal and Torres Strait Islander human remains and sixteen information sheets relating to aspects of the Act and cultural heritage places have also been developed and are posted on the Department of Natural Resources and Water website.

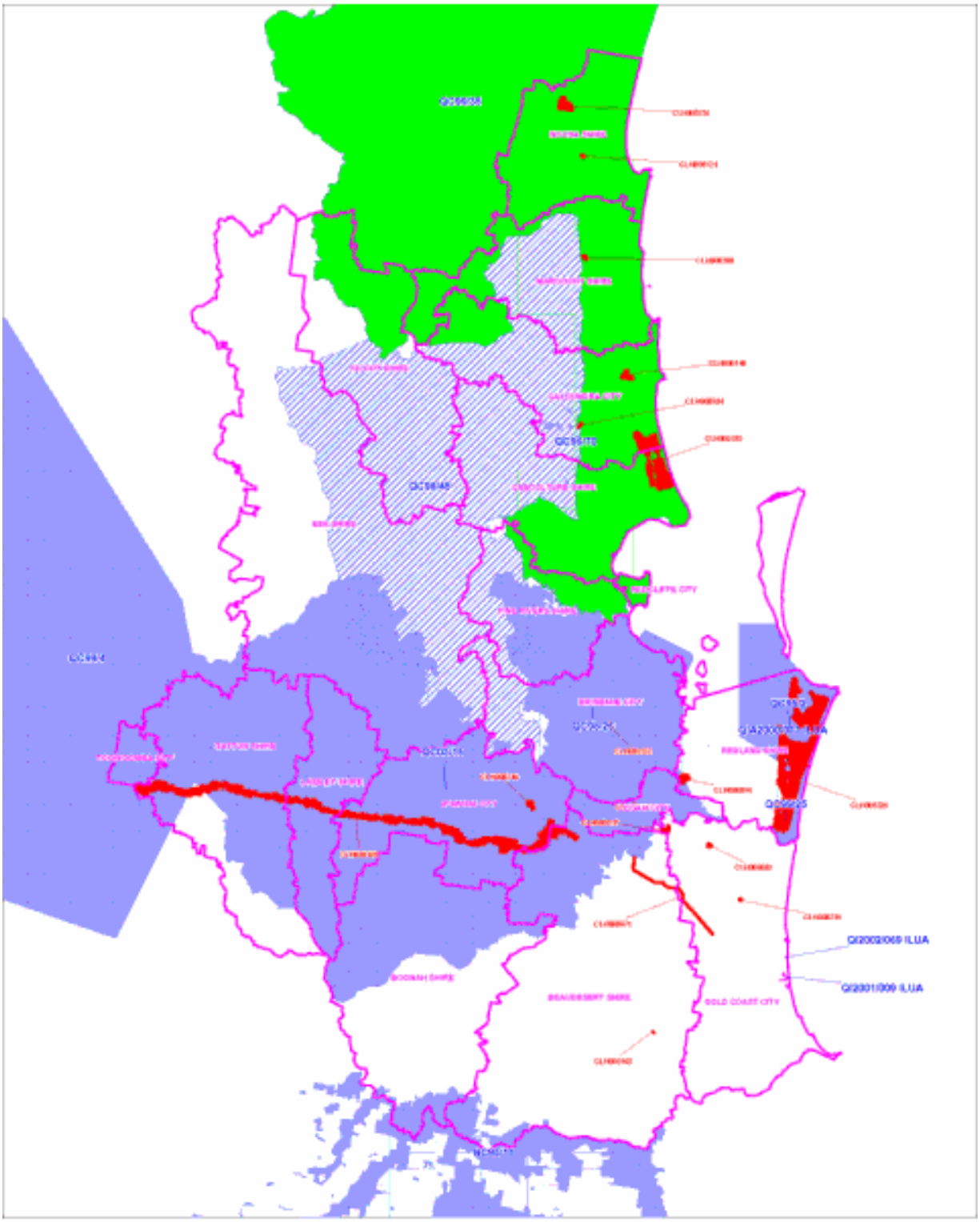
South East Queensland:

Under Part 6 of the *Aboriginal Cultural Heritage Act 2003* one cultural heritage study has been undertaken for the SEQ region. This is for the site of Ban Ban Springs in the Gayndah Shire. Natural Resources and Water were the sponsor and Wakka Wakka Jinda the Aboriginal Party under the Act.

Seventeen Cultural Heritage Management Plans as defined under Part 7 of the Act have been developed for the area and are shown on the data object. A reasonably substantial number of other cultural heritage agreements are thought to have been entered into directly between land users and the Aboriginal parties to ensure compliance under the cultural heritage legislation - the number cannot be ascertained as there is no requirement to report these agreements under the cultural heritage legislation.

Twelve Aboriginal Parties as defined by Part 4 of the Act have been established for the area and they are shown on the data object.

There are 2624 places recorded on the Aboriginal Cultural Heritage Database defined under Part 5 of the Act for the 18 Local Government Areas comprising the SEQ region.



AT04.1 Location of approved Cultural Heritage Management Plans (red) and Aboriginal Party areas (coloured), as at 30th October, 2005. Date range: 16/04/2005 - 30/10/2005

Related links

NRMW - Cultural Heritage

http://www.nrm.qld.gov.au/cultural_heritage/index.html

Desired Regional Outcome 8 – Urban Development

A compact and sustainable urban pattern of well-planned communities, supported by a network or accessible and convenient centres close to residential areas, employment locations and transport.

SEQ UD01 Residential dwelling densities

Area of land consumed in new residential subdivisions

State of Environment Theme: Human settlements

Results

UD01.1 Number of lots created for year ending 30 June 2005

This indicator tracks the amount of land converted to residential lots in both Urban Residential and Rural Residential zoned areas of each Local Government Area. A total of 23,735 residential lots were created in SEQ Local Government Areas for the year ending 30 June 2005, made up of 21,719 Urban lots and 2016 Rural Residential lots. Gold Coast City created the highest number of Urban lots (4864 lots), slightly more than Brisbane City (4755 lots). Ipswich City recorded the highest number of Rural Residential lots developed (401 lots), followed by Caboolture Shire (229 lots) and Beaudesert Shire (217 lots).

UD01.2 Area of land consumed for residential development, year ending 30 June 2005

This indicator is a measure of total land consumed for residential development in areas designated as Urban and Rural Residential. A total of around 4993 ha of land were consumed in the development of residential lots for SEQ Local Government Areas during the year ending 30 June 2005 (total excludes land for Urban lots in Gatton Shire). This total includes around 2650 ha for Urban lots (excluding Gatton) and 2343 ha for Rural Residential lots. Gold Coast City consumed the largest amount of land (832 ha) followed by Brisbane City (535 ha) and Ipswich City (501 ha).

UD01.3 Average Lot Yield for residential development, year ending 30 June 2005

This indicator tracks the Average Lot Yield for residential development, expressed in terms of lots per hectare. The main factor influencing lot yield is the number of smaller residential allotments created within a given area. The overall average yield (lots per hectare) for SEQ Local Government Areas during the year ending 30 June 2005 was highest in Redcliffe City (12.7 lots/ha), followed by Toowoomba City (8.8 lots/ha) and Brisbane City (8.5 lots/ha). Redcliffe City had the highest yield of urban lots (12.7 lots/ha), followed by Ipswich City (10.2 lots/ha) and Logan City (10 lots/ha).

LGA	Number of Lots created, year ending 30 June 2005		
	Urban Lots	Rural Residential Lots	Total Lots created
Beaudesert Shire	202	217	**419**
Boonah Shire	30	53	**83**
Brisbane City	4755	23	**4778**
Caboolture Shire	1658	229	**1887**
Caloundra City	2463	160	**2623**
Esk Shire	310	139	**449**
Gatton Shire	54	101	**155**
Gold Coast City	4864	73	**4937**
Ipswich City	3258	401	**3659**
Kilcoy Shire	5	82	**87**
Laidley Shire	72	27	**99**
Logan City	1206	101	**1307**
Maroochy Shire	614	156	**770**
Noosa Shire	69	67	**136**
Pine Rivers Shire	838	147	**985**
Redcliffe City	79	0	**79**
Redland Shire	1002	22	**1024**
Toowoomba City	240	18	**258**
SEQ REGION	**21719**	**2016**	**23735**

Source: Department of Local Government, Planning Sport and Recreation - Queensland Residential Land and Dwelling Activity Monitor.

UD01.1 Number of lots created for year ending 30 June 2005. Date range: 1/07/2004 - 30/06/2005

Local Government Area	Area of land consumed for residential lots, year ending 30 June 2005		
	Urban (ha)	Rural Residential (ha)	Total (ha)
Beaudesert Shire	31.3	263.3	**294.6**
Boonah Shire	5.4	95.1	**100.5**
Brisbane City	535.3	28.3	**563.6**
Caboolture Shire	189.3	122.7	**312**
Caloundra City	291.2	101.7	**392.9**
Esk Shire	35.7	148.3	**184**
Gatton Shire	Not available*	167.9	**167.9***
Gold Coast City	745.1	87.1	**832.2**
Ipswich City	318.9	181.9	**500.8**
Kilcoy Shire	1.2	302.7	**303.9**
Laidley Shire	10.7	20	**30.7**
Logan City	121.1	62.8	**183.9**
Maroochy Shire	86	228.9	**314.9**
Noosa Shire	17.6	148.6	**166.2**
Pine Rivers Shire	103.8	358.6	**462.4**
Redcliffe City	6.2	0	**6.2**
Redland Shire	126.6	20.1	**146.7**
Toowoomba City	24.4	5	**29.4**
SEQ REGION*	**2649.8***	**2343**	**4992.8***

* Data not available for Urban Lots in Gatton Shire for whole period – regional totals exclude Gatton

Source: Department of Local Government, Planning Sport and Recreation - Queensland Residential Land and Dwelling Activity Monitor.

UD01.2 Area of land consumed for residential development, year ending 30 June 2005. Date range: 1/07/2004 - 30/06/2005

Local Government Area	Average lot yield for residential lots developed, year ending 30 June 2005		
	Urban (Lots/ha)	Rural Residential (Lots/ha)	Average (Lots/ha)
Beaudesert Shire	6.5	0.8	1.4
Boonah Shire	5.6	0.6	0.8
Brisbane City	8.9	0.8	8.5
Caboolture Shire	8.8	1.9	6.0
Caloundra City	8.5	1.6	6.7
Esk Shire	8.7	0.9	2.4
Gatton Shire	N/A	0.6	0.9*
Gold Coast City	6.5	0.8	5.9
Ipswich City	10.2	2.2	7.3
Kilcoy Shire	4.2	0.3	0.3
Laidley Shire	6.7	1.4	3.2
Logan City	10.0	1.6	7.1
Maroochy Shire	7.1	0.7	2.4
Noosa Shire	3.9	0.5	0.8
Pine Rivers Shire	8.1	0.4	2.1
Redcliffe City	12.7	0.0	12.7
Redland Shire	7.9	1.1	7.0
Toowoomba City	9.8	3.6	8.8
SEQ REGION	**8.2***	**0.9**	**4.8***

Note* - Data not available for Urban Lots in Gatton Shire for whole period - regional totals exclude Gatton

Source: Department of Local Government, Planning Sport and Recreation - Queensland Residential Land and Dwelling Activity Monitor.

UD01.3 Average Lot Yield for residential development, year ending 30 June 2005. Date range: 1/07/2004 - 30/06/2005

Related indicators

SEQ UD02

SEQ UD03

Related links

DLGPSR - Planning information and forecasting

http://www.lgp.qld.gov.au/?id=88

SEQ UD02 New dwelling approvals by type and location

New dwelling approvals by type and location in South East Queensland

State of Environment Theme: Human settlements

Results

Introduction

Residential dwelling approvals are indicative of the degree of development occurring in an area over a given period of time, and the nature of that development. They are also significant indicators of population and economic growth.

ABS records of residential dwelling approvals are divided into dwelling type categories to differentiate Detached Dwellings ie one dwelling per residential lot from Other Dwellings, which represent medium to higher density development (ie more than one dwelling per residential lot, such as semi-detached dwellings, row or terrace houses, town houses, flats, units and apartments). A separate approval is recorded for every dwelling in a multi-dwelling project. In general, an increase in the number of development approvals for non-detached dwellings is indicative of achieving higher densities (dwellings/hectare) and more efficient use of residential land within a given area.

Dwelling Approvals by Dwelling Type and Regional Land Use Category.

This indicator tracks the yearly number of Dwelling Approvals granted for Detached Dwellings and for Other Dwellings by Regional Land Use Category in SEQ, as well as the proportion of total Dwelling Approvals granted within each Regional Land Use Category. The number of Dwelling Approvals for year ending 30 June 2005 is distributed by Regional Land Use category boundaries, according to the proportions of approvals recorded within Collection Districts for each Local Government Area.

Known Information Gaps

The number of Dwelling Approvals within each Regional Land Use category is based on data for all Collection Districts (CD) that fall within that category boundary. Since Collection Districts are the smallest geographical areas covered by the 2001 Census data, the allocation of Dwelling Approvals to categories where the Regional Land Use boundaries divide a CD can only be estimated. Where that occurs, the number of approvals is distributed proportionally to each category according to the likely continuation of residential growth patterns in neighbouring CDs.

Identifying information is unavailable for all approvals at the CD level. Discrepancies will arise between total dwelling approvals for an LGA and approvals based on CD aggregates where it was not possible to allocate approvals to the correct CD in an LGA. For that reason, the total number of dwelling approvals shown in the tables is known to vary slightly from LGA totals provided by ABS.

Related indicators

SEQ UD01; SEQ UD03

UD02.1 Number of Development Approvals by Regional Land Use Categories for year ending June 2005 - Detached Dwellings

A total of 15 784 approvals for detached dwellings were granted for the SEQ region in 2004/2005. The number of approvals for Brisbane City (3367) only narrowly exceeded those for Gold Coast City (3208), followed at some distance by Ipswich City (1580), Caboolture Shire (1298) and Pine Rivers Shire (1217).

Most dwelling approvals for Detached Dwellings occurred within the Urban Footprint (13,640 dwellings, or 86 % of total). Approvals in the Rural Living Area and the Regional Landscape and Rural Production Area totalled 1791 for all of SEQ, with the highest number of approvals in Brisbane City (225), Laidley Shire (224), Maroochy (206) and Gold Coast (196).

Local Government Area	Number of Development Approvals by Regional Land Use Categories for Year to 30/6/05 – Detached Dwellings					
	Urban Footprint	Regional Landscape and Rural Production Area	Rural Living Area	Investigation Area	Mt Lindesay/ North Beaudesert Study Area	Total Approvals (Other Dwellings)
Beaudesert Shire	96	64	5	0	172	**337**
Boonah Shire	25	22	0	3	0	**50**
Brisbane City	3,142	171	54	0	0	**3,367**
Caboolture Shire	1,173	75	10	40	0	**1,298**
Caloundra City	577	119	40	0	0	**736**
Esk Shire	50	64	28	0	0	**142**
Gatton Shire	60	29	41	0	0	**130**
Gold Coast City	3,002	196	0	0	10	**3,208**
Ipswich City	1,514	45	0	21	0	**1,580**
Kilcoy Shire	13	30	0	0	0	**43**
Laidley Shire	46	51	173	0	0	**270**
Logan City	551	9	0	0	107	**667**
Maroochy Shire	958	78	128	0	0	**1,164**
Noosa Shire	164	66	64	0	0	**294**
Pine Rivers Shire	1,055	94	68	0	0	**1,217**
Redcliffe City	102	2	0	0	0	**104**
Redland Shire	712	65	0	0	0	**777**
Toowoomba City	400	0	0	0	0	**400**
TOTAL SEQ Region	**13,640**	**1,180**	**611**	**64**	**289**	**15,784**

UD02.1 Number of Development Approvals by Regional Land Use Categories - detached dwellings. Date range: 30/06/2004 - 30/06/2005

UD02.2 Number of Development Approvals by Regional Land Use Categories for Year to June 2005 - Other Dwelling types

A total of 10 299 dwelling approvals for Other Dwelling Types were granted for the SEQ region in 2004/2005. The number of approvals for Brisbane City (4871) exceeded those for Gold Coast City (2870), followed at some distance by Maroochy Shire (517), Toowoomba City (393) and Redcliffe City (356). Most approvals for Other Dwelling Types occurred within the Urban Footprint (10,299 approvals, or 99 % of total approvals).

Local Government Area	Number of Development Approvals by Regional Land Use Categories for Year to 30/6/05 – Other Dwelling Types					
	Urban Footprint	Regional Landscape and Rural Production Area	Rural Living Area	Investigation Area	Mt Lindesay/ North Beaudesert Study Area	Total Approvals (Other Dwellings)
Beaudesert Shire	7	2	17	0	3	**29**
Boonah Shire	0	0	0	0	0	**0**
Brisbane City	4,859	12	0	0	0	**4,871**
Caboolture Shire	254	18	0	0	0	**272**
Caloundra City	345	5	5	0	0	**355**
Esk Shire	4	0	0	0	0	**4**
Gatton Shire	4	0	0	0	0	**4**
Gold Coast City	2,842	28	0	0	0	**2,870**
Ipswich City	153	2	0	0	0	**155**
Kilcoy Shire	6	0	0	0	0	**6**
Laidley Shire	2	1	0	0	0	**3**
Logan City	66	0	0	0	0	**66**
Maroochy Shire	510	7	0	0	0	**517**
Noosa Shire	88	2	3	0	0	**93**
Pine Rivers Shire	244	2	0	0	0	**246**
Redcliffe City	348	8	0	0	0	**356**
Redland Shire	174	0	0	0	0	**174**
Toowoomba City	393	0	0	0	0	**393**
TOTAL SEQ Region	**10,299**	**87**	**25**	**0**	**3**	**10,414**

UD02.2 Number of Development Approvals by Regional Land Use Categories - other dwelling types. Date range: 30/06/2004 - 30/06/2005

UD02.3 Proportion of Total Dwelling Approvals by Regional Land Use Categories for Year to June 2005

A total of 26 198 dwelling approvals for all categories of residential accommodation were granted for the SEQ region in 2004/2005. The number of approvals for Brisbane City (8238) exceeded those for Gold Coast City (6 078), followed at some distance by Ipswich City (1735), Maroochy Shire (1681) and Caboolture Shire (1570).

Excluding Toowoomba City (where all land falls within the Urban Footprint), Redcliffe City had the highest proportion of dwelling approvals within the Urban Footprint (98 %), followed by Brisbane City (97 %), Gold Coast City and Ipswich City (each 96 %). Approvals in the Rural Living Area and the Regional Landscape and Rural Production Area made up only 7 % of all approvals in SEQ. Not surprisingly, the rural shires of Laidley (82 %), Esk (63 %) and Kilcoy (44 %) had the highest proportion of development approvals in these categories.

Local Government Area	Proportion of Total Dwelling Approvals by Regional Land Use Categories for Year to 30/6/05					
	Urban Footprint	Regional Landscape and Rural Production Area	Rural Living Area	Investigation Area	Mt Lindesay/ North Beaudesert Study Area	Total Approvals (All Dwellings)
Beaudesert Shire	28%	18%	6%	0%	48%	**366**
Boonah Shire	50%	44%	0%	6%	0%	**50**
Brisbane City	97%	2%	1%	0%	0%	**8,238**
Caboolture Shire	91%	6%	1%	3%	0%	**1,570**
Caloundra City	85%	11%	4%	0%	0%	**1,091**
Esk Shire	37%	44%	19%	0%	0%	**146**
Gatton Shire	48%	22%	31%	0%	0%	**134**
Gold Coast City	96%	4%	0%	0%	0%	**6,078**
Ipswich City	96%	3%	0%	1%	0%	**1,735**
Kilcoy Shire	39%	61%	0%	0%	0%	**49**
Laidley Shire	18%	19%	63%	0%	0%	**273**
Logan City	84%	1%	0%	0%	15%	**733**
Maroochy Shire	87%	5%	8%	0%	0%	**1,681**
Noosa Shire	65%	18%	17%	0%	0%	**387**
Pine Rivers Shire	89%	7%	5%	0%	0%	**1,463**
Redcliffe City	98%	2%	0%	0%	0%	**460**
Redland Shire	93%	7%	0%	0%	0%	**951**
Toowoomba City	100%	0%	0%	0%	0%	**793**
TOTAL SEQ Region	**91%**	**5%**	**2%**	**0%**	**1%**	**26,198**

UD02.3 Proportion of total dwelling approvals by Regional Land Use categories. Date range: 30/06/2004 - 30/06/2005

SEQ UD03 Transit-oriented development

Number of Transit Oriented Developments in South East Queensland

State of Environment Theme: Human settlements

Results

Introduction

Transit Oriented Developments (TODs) are mixed-use residential and employment areas designed to maximise the efficient use of land through high levels of access to public transport and employment opportunities. Transit oriented development principles are based on the achievement of higher residential densities within walking distance of transport nodes, in order to support employment, local shopping and other services.

The SEQ Regional Plan envisages TOD principles being employed around regional centres and other areas having good access to high frequency public transport. The SEQ Regional Plan nominated eight sites under active consideration for TOD opportunities. These sites were indicative only, with substantially more sites likely to be nominated through the Local Growth Management Strategies. For simplicity, the original illustrative eight sites are reported on here.

Estimated numbers of Occupied Private Dwellings in nominal TOD areas by dwelling type.

This indicator provides a compiled estimate of the number and proportion of Occupied Private Dwellings occurring within the proposed TOD areas named in the SEQ Regional Plan. Over time, infill development and redevelopment is likely to increase the number of dwellings within each catchment area, mainly in the form of flats, units or apartments. Actual boundaries of the TOD areas have not been defined at the time of writing, so these estimates are based on the number of dwellings in surrounding Collection Districts where the centroid of the CD falls within an 800 metre radius of the station. Data from the 2001 Census collection has been updated with the number of dwelling approvals reported to ABS up to the quarter ending March 2005.

UD03.1 - Estimated number of Occupied Private Dwellings within TOD areas, March 2005.

An estimated total of around 25 500 Occupied Private Dwellings fall within the boundaries of the eight nominal TOD areas. Albion TOD has the highest total number of dwellings, followed by Park Road and South Brisbane. South Brisbane TOD has the highest number of high-rise flats, while the number of low-rise flats is highest in Albion TOD.

Nominal TOD Station	*Estimated number of Occupied Private Dwellings by dwelling type*				Total Estimated Private Dwellings** 30 March 2005
	Detached house	Semi-detached Row, Terrace or Town house	Low-rise Flat, Unit or Apartment (3 stories or lower)	High-rise Flat, Unit or Apartment (4 stories or higher)	
Albion Railway Station	958	153	1,137	14	**4,707**
Bowen Hills Railway Station	208	64	365	925	**2,519**
Buranda Railway Station	654	57	342	76	**2,217**
Cleveland Railway Station	351	294	167	30	**1,700**
Milton Railway Station	733	120	424	194	**2,841**
Park Road Railway Station	1,045	63	691	271	**4,073**
South Brisbane Railway Station	921	6	210	1,897	**4,073**
Woolloongabba Busway Station	516	66	454	596	**3,417**
TOTAL	**5,386**	**823**	**3,790**	**4,003**	**25,547**

Source: Australian Bureau of Statistics, 2001 Census of Population and Housing Table B18; ABS Dwelling Approvals data (unpublished) for quarters ending 30 September 2001 to 30 March 2005. Estimates based on 2001 Census count plus new dwelling approvals for intervening period.

* Includes flats or units attached to a house.

**Total includes all Occupied Private Dwellings in Census categories *Other Dwelling, Not Stated* and *Unoccupied Dwellings*, so the categories shown will not add up to 100%.

UD03.1 Estimated Number of Occupied Private Dwellings within Nominal TOD Areas, March 2005. Date range: 1/01/2005 - 30/03/2005

UD03.2 - Estimated proportion of Occupied Private Dwellings within TOD areas, March 2005.

In total, around one third (31 %) of dwellings in the TOD areas are low rise or high rise flats and units. Detached houses and townhouses make up less than a quarter (24 %) of total dwellings. South Brisbane TOD has the highest proportion (47 %) of high-rise flats, while Albion TOD has the highest number and proportion of low-rise flats (24 %). Buranda, Park Road and Milton TOD areas are characterised by high proportions of detached houses, while Cleveland TOD has a relatively high percentage of Semi-detached Row, Terrace or Town houses compared to other areas.

Nominal TOD Station	*Estimated proportion of Occupied Private Dwellings by dwelling type*				Total Estimated Private Dwellings** 30 March 2005
	Detached house	Semi-detached Row, Terrace or Town house	Low-rise Flat, Unit or Apartment (3 stories or lower)	High-rise Flat, Unit or Apartment (4 stories or higher)	
Albion Railway Station	20%	3%	24%	0%	**4,707**
Bowen Hills Railway Station	8%	3%	14%	37%	**2,519**
Buranda Railway Station	29%	3%	15%	3%	**2,217**
Cleveland Railway Station	21%	17%	10%	2%	**1,700**
Milton Railway Station	26%	4%	15%	7%	**2,841**
Park Road Railway Station	26%	2%	17%	7%	**4,073**
South Brisbane Railway Station	23%	0%	5%	47%	**4,073**
Woolloongabba Busway Station	15%	2%	13%	17%	**3,417**
TOTAL	**21%**	**3%**	**15%**	**16%**	**25,547**

Source: Australian Bureau of Statistics, 2001 Census of Population and Housing Table B18; ABS Dwelling Approvals data (unpublished) for quarters ending 30 September 2001 to 30 March 2005. Estimates based on 2001 Census count plus new dwelling approvals for intervening period.

* Includes flats or units attached to a house.

**Total includes all Occupied Private Dwellings in Census categories Other Dwelling, Not Stated and Unoccupied Dwellings, so the categories shown will not add up to 100%.

UD03.2 Estimated Proportion of Occupied Private Dwellings within Nominal TOD Areas, March 2005. Date range: 1/01/2005 - 30/03/2005

Known information gaps

These estimates are not actual dwelling numbers and should be treated as being indicative of the actual total. Known methodological and data deficiencies include:

- The 800 m radius catchment areas of some TODs overlap. To avoid double counting, the total number of dwellings in affected Collection Districts are allocated to the TOD where the centroid of the CD occurs. While this method preserves the total number of dwellings counted, it may result in slight undercounts in some cases, and corresponding overcounts in the neighbouring TOD.
- The data does not subtract demolitions or changes of use that have occurred since the 2001 Census count.
- Not all dwelling approvals that are granted result in completed dwellings.
- These estimates do not include non-private dwellings such as boarding houses, nurses quarters, aged care accommodation, employer housing etc.
- Updated counts of the actual number of Occupied Private Dwellings in TOD areas will not be possible until release of the 2006 Census data.

Links: Australian Bureau of Statistics, Cdata 2001 Census of Population and Housing Table B18.

Related indicators

SEQ UD01

SEQ UD02

Related links

DLGPSR - Planning information and forecasting

http://www.lgp.qld.gov.au/?id=88

Desired Regional Outcome 9—Economic Development

A strong, resilient and diversified economy—growing prosperity in the region by utilising its competitive advantages to deliver exports, investment, and sustainable and accessible jobs.

SEQ ED01 Employment

Employment statistics for South East Queensland

State of Environment Theme: Human settlements

Results

Industry

Table ED01.1 shows that 1,066,271 (68.6 %) of the state's employed persons were located in the SEQ region at the time of the 2001 Census. Retail and wholesale trade and accommodation was the largest industry group in SEQ Region, with 282,052 (26.5 %) of the region's employed workforce. The next largest industry groups were Manufacturing, construction and utilities industry group with 259,157 (24.3 %) and Government, education and health with 234,395 (22.0 %).

The highest specialisation ratio in the region was for Property, finance and communications, at 1.2, indicating an above average representation of persons employed in this industry group in the SEQ region. In contrast, the lowest ratio was for Primary industries including mining, at 0.3, indicating that this industry group employed a significantly lower proportion of persons than elsewhere in Queensland.

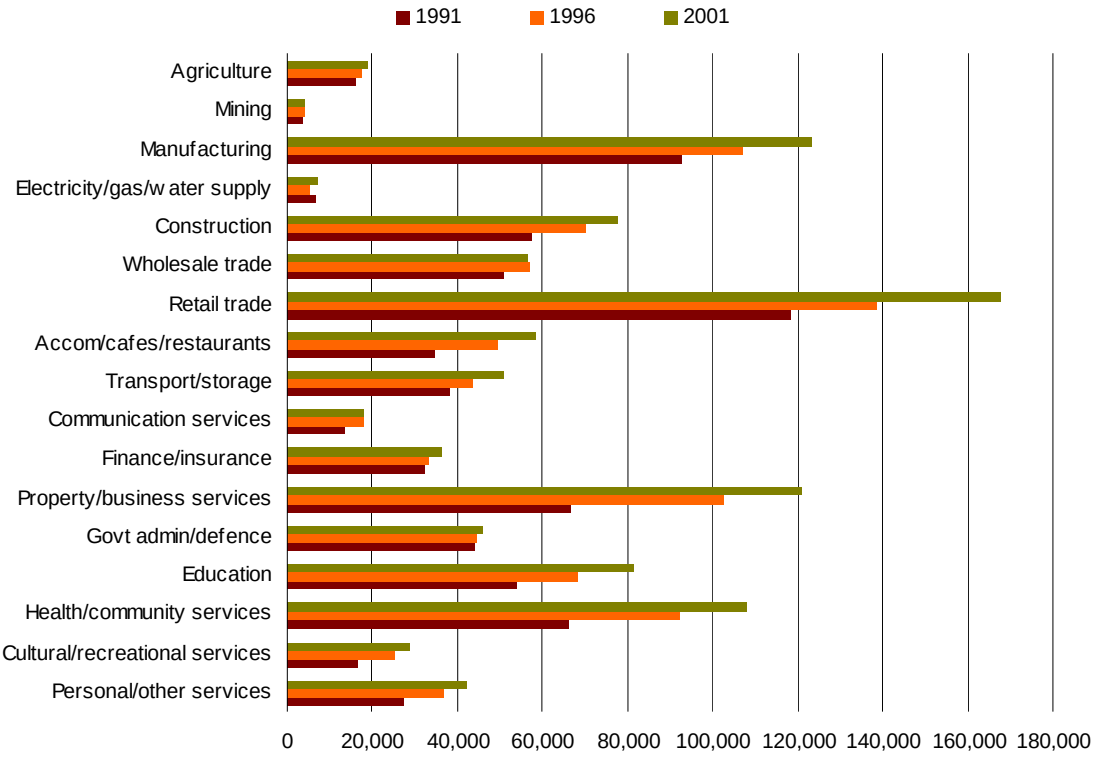
Figure ED1.2 indicates growth in employment by industry over the decade to 2001. It shows that the Property/business services experienced the largest increase in employment (54,537) in the SEQ region. Other industries which increased considerably over the period were: Retail industry (49,236) and Health and community services (41,895).

Local govt area	Primary industries including mining	Manufacturing construction and utilities	Retail and wholesale trade, and accommo-dation	Property, finance and communi-cations	Govt education and health	Cultural recreational personal services	Total[c]
Beaudesert	1,382	7,371	5,948	2,617	4,322	1,468	23,760
Boonah	775	723	765	207	733	155	3,435
Brisbane	4,356	89,215	100,709	86,448	106,799	27,809	423,280
Caboolture	1,941	12,122	11,273	4,860	8,019	2,488	41,813
Caloundra	1,549	6,398	7,833	3,364	5,300	1,768	26,899
Esk	883	1,399	1,078	413	1,045	303	5,269
Gatton	1,199	1,554	1,652	503	1,221	262	6,523
Gold Coast	1,808	41,900	54,712	27,198	29,315	14,414	173,943
Ipswich	1,019	16,152	11,986	5,737	12,507	3,057	51,610
Kilcoy	245	323	279	61	237	97	1,260
Laidley	774	1,210	1,013	330	922	217	4,581
Logan	795	23,288	20,299	9,491	12,036	3,887	71,631
Maroochy	1,804	10,814	14,950	6,505	10,592	3,086	48,948
Noosa	539	3,268	5,474	2,334	3,089	1,048	16,156
Pine Rivers	751	15,621	15,163	9,979	13,201	4,008	59,837
Redcliffe	183	5,017	5,013	2,365	4,178	1,077	18,334
Redland	1,175	14,654	14,061	8,102	10,162	3,158	52,406
Toowoomba	1,049	8,133	9,843	4,267	10,723	1,978	36,598
SEQ[d]	**22,230**	**259,157**	**282,052**	**174,786**	**234,395**	**70,280**	**1,066,271**
Specialisation ratio[e]	0.3	1.0	1.0	1.2	1.0	1.1	. .
Queensland	93,997	365,957	404,952	218,473	342,105	93,874	1,554,209
SEQ as a % of Qld	23.6	70.8	69.7	80.0	68.5	74.9	68.6

. . = not applicable
[a] Aged 15 years and over.
[b] 'Place of usual residence' basis, i.e. the place where the person usually resided at census time.
[c] Includes 'not stated' industry of employment responses.
[d] Components may not add to South East Queensland region totals due to Australian Bureau of Statistics randomisation process for confidentiality purposes.
[e] The ratio of the proportion of persons employed in each industry group in South East Queensland region to the proportion for the state as a whole.

Source: ABS, *Census of Population and Housing, 2001* (unpublished data).

ED01.1 Employed persons[a] by industry group by local government area, SEQ region[b], 2001.
Date range: 20/08/2001 - 20/08/2001



(a) Aged 15 years and over.
(b) 'Place of enumeration' basis, the place where the person was counted on census night.

Source: ABS, Census of Population and Housing, 1991, 1996 and 2001 (unpublished data).

ED01.2 Employed persons (a) by industry, South East Queensland region (b), 1991, 1996 and 2001. Date range: 20/08/2001 - 20/08/2001

Labour Force

According to Table ED1.3, the unemployment rate in SEQ was 4.7 % in the June quarter 2006, lower than that recorded in Queensland, 5.0 % (ED01.3). In the June quarter 2003, the unemployment rate in South East Queensland the June quarter 2002 was 7.0 %. The number of unemployed persons fell from 86,510 to 68,496 over the period.

In the June quarter 2006, the highest unemployment rates in the region were recorded in Caboolture Shire (6.8 %), Noosa Shire (6.8 %), Redcliffe Shire (6.7 %) and Laidley Shire (6.7 %). The lowest unemployment rates were in Pine Rivers Shire (2.6 %) and Gatton Shire (3.1 %).

In the June quarter 2006, 68.8 % of Queensland's total labour force was located in the SEQ region (1,452,278 persons). In the June quarter 2003, 69.3 % of the state's labour force was located in SEQ. Brisbane City had the largest proportion of the region's labour force with 38.4 % (558,337 persons), with Gold Coast City with 17.1 % (248,822 persons) and Logan City with 6.5 % (94,758 persons).

Local government area	Unemployment (persons)	Unemployment rate % (smoothed)	Labour Force (persons)
Beaudesert (S)	1,274	4.0	31,657
Boonah (S)	159	3.4	4,721
Brisbane (C)	23,478	4.2	558,337
Caboolture (S)	4,017	6.8	58,989
Caloundra (C)	2,619	6.6	39,982
Esk (S)	414	5.4	7,599
Gatton (S)	290	3.1	9,222
Gold Coast (C)	10,827	4.4	248,822
Ipswich (C)	4,214	5.9	71,226
Kilcoy (S)	71	3.9	1,813
Laidley (S)	447	6.7	6,716
Logan (C)	6,088	6.4	94,758
Maroochy (S)	4,597	6.3	72,814
Noosa (S)	1,652	6.8	24,187
Pine Rivers (S)	2,077	2.6	79,740
Redcliffe (C)	1,734	6.7	25,853
Redland (S)	2,342	3.5	67,045
Toowoomba (C)	2,196	4.5	48,797
South East Queensland	**68,496**	**4.7**	**1,452,278**
Queensland	104,867	5.0	2,109,751
Region as % of Queensland	**65.3**	**..**	**68.8**

. . = not applicable

C = City S = Shire

[a] Figures are synthetic estimates based on ABS Employment, Centrelink unemployment numbers and labour force data from the Census of Population and Housing estimates. It is therefore inappropriate to derive employment estimates from these statistics. Small Area Labour Force data may have high standard errors associated with it. Care should be taken in the interpretation of regional estimates. The estimates in this collection have been adjusted to take account of seasonal or other variations.

[b] Based on smoothed DEWR estimates.

Source: Department of Employment and Workplace Relations, Small Area Labour Markets.

ED01.3. Labour force status(a)(b) by local government area, South East Queensland region, June 2006. Date range: 20/08/2001 - 20/08/2001

Occupation

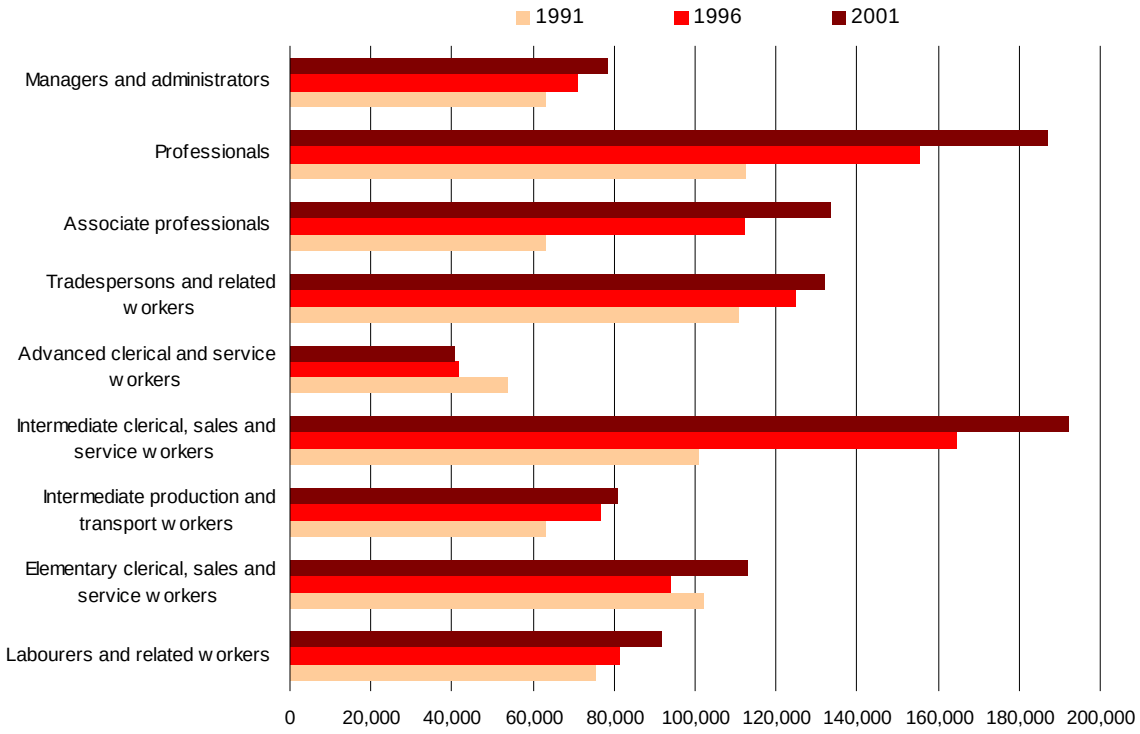
Table ED1.4 shows that 1,066,271 (68.6 %) of the state's employed persons were located in the SEQ region at the time of the 2001 Census. South East Queensland has a high proportion of the state's Professionals (75.3%) and Advanced clerical and service workers (74.8%). In contrast, the region has considerably smaller proportion of the state's Managers and administrators (59.0 %), Labourers and related workers (60.3 %) and Intermediate production and transport workers (61.0 %).
Figure ED1.5 shows that the occupation with the largest number of employed persons in the SEQ region at the time of the 2001 Census was intermediate clerical, sales and service workers (192,172 persons), followed closely by professionals (187,036 persons). The largest increase in employed persons in an occupation in the region between 1991 and 2001 was also for intermediate clerical, sales and service workers, rising from 101,037 persons to 192,172 persons, again closely followed by professionals.

The only occupation to show a decline in numbers employed was advanced clerical and service workers (e.g. secretaries, personal assistants, bookkeepers, legal clerks, insurance agents), which decreased from 53,644 persons in 1991 to 40,598 persons at the time of the 2001 Census.

Employed persons[a] by occupation group by local government area, South East Queensland, 2001										
Local government area	**Managers and administrators**	**Professionals**	**Associate professionals**	**Tradespersons and related workers**	**Advanced clerical and service workers**	**Intermediate clerical, sales and service workers**	**Intermediate production and transport workers**	**Elementary clerical, sales and service workers**	**Labourers and related workers**	**Total[b]**
Beaudesert	2,182	2,622	2,603	3,868	946	3,908	2,662	1,959	2,488	23,771
Boonah)	673	376	282	431	97	432	301	248	553	3,440
Brisbane	33,270	102,116	54,653	40,040	16,359	77,039	25,139	40,629	26,856	423,278
Caboolture	2,597	4,352	4,425	6,359	1,400	7,313	4,641	4,654	5,145	41,815
Caloundra	2,064	3,593	3,374	3,965	1,058	4,244	2,060	3,088	2,946	26,900
Esk	756	497	477	728	153	684	566	392	885	5,269
Gatton	782	703	617	822	200	846	611	529	1,296	6,517
Gold Coast	12,019	23,801	23,453	23,795	7,333	31,101	12,009	22,135	14,492	173,942
Ipswich	2,384	5,767	5,473	8,492	1,407	9,586	5,733	5,033	6,688	51,607
Kilcoy	168	116	121	139	28	157	124	96	282	1,246
Laidley	589	432	331	632	141	641	484	365	876	4,581
Logan	3,852	7,180	7,333	10,877	2,323	13,726	8,794	7,965	8,155	71,636
Maroochy	3,560	7,610	6,824	6,850	1,885	7,864	3,245	5,656	4,516	48,948
Noosa	1,232	2,443	2,575	2,124	654	2,483	977	1,804	1,536	16,149
Pine Rivers	4,144	9,099	7,264	8,342	2,474	11,880	4,860	6,379	4,401	59,828
Redcliffe	1,013	2,414	2,032	2,591	591	3,545	1,830	2,074	1,832	18,337
Redland	4,115	7,198	6,310	7,357	2,133	9,864	4,476	5,432	4,494	52,409
Toowoomba	2,082	6,578	4,211	4,869	1,085	6,276	2,648	4,099	4,145	36,602
SEQ[d]	**77,482**	**186,897**	**132,358**	**132,281**	**40,267**	**191,589**	**81,160**	**112,537**	**91,586**	**1,066,271**
Queensland	130,515	248,086	185,767	199,826	53,865	263,790	133,008	157,381	151,979	1,554,209
SEQ as % of Queensland	59.4	75.3	71.2	66.2	74.8	72.6	61.0	71.5	60.3	68.6

[a] Aged 15 years and over.
[b] 'Place of usual residence' basis, i.e. the pace where the person usually resided at census time.
[c] Includes 'not stated' and 'inadequately described' occupation of employment responses.
[d] Components may not add to South East Queensland region totals due to ABS randomisation process for confidentiality purposes.
Source: ABS, Census of Population and Housing, 2001 (unpublished data).

ED01.4 Employed persons (a) by occupation, South East Queensland region (b), 1991, 1996 and 2001. Date range: 20/08/2005 - 20/08/2005



Source: ABS, Census of Population and Housing, 1991, 1996 and 2001 (unpublished data).

ED01.5 Employed persons (a) by occupation, South East Queensland region (b), 1991, 1996 and 2001. Date range: 20/08/1991 - 20/08/2001

Sources of personal income

The data in table ED1.6 presents small-area experimental estimates of personal income in the SEQ region for the year ending June 2001. The total value from income sources in the South East Queensland region was $45,426 million, accounting for 70.1 % of all Queensland personal income.

In the SEQ region, there were 1,066,587 wage and salary earners in June 2001. The highest number of wage and salary earners was recorded in Brisbane City (425,019 persons), Gold Coast City (173,045 persons) and Logan City (73,335 persons). The lowest number of wage and salary earners was recorded in Kilcoy Shire (1070 persons).

Similarly, the SEQ region recorded 176,041 persons whose source of personal income was derived from own unincorporated businesses.

Within the SEQ region, Redcliffe City recorded the highest rate per person of income sourced to government cash benefits (42.0 %). Caloundra City had the next highest rate (39.7 %), followed by Laidley Shire (39.6 %). Pine Rivers Shire (20.7 %) and Gatton Shire (22.0 %) recorded the lowest.

Related links

Qld Office of Economic and Statistical Research

http://www.oesr.qld.gov.au/index.shtml

Source of personal income by local government area

Local Government Area	Wage & salary		Own unincorporated business		Government cash benefit			Other[a]		Total income from all sources
	no.	$m	no.	$m	no.	$m	% per person[b]	no.	$m	$m
Beaudesert	20,149	562.4	4,868	66.7	12,889	103.6	26.2	13,383	63.9	796.6
Boonah	2,988	76.5	1,041	11.0	2,401	20.2	31.1	2,647	10.0	117.7
Brisbane	425,019	14,257.4	55,824	1,102.1	220,190	1,668.0	26.1	349,073	2,170.5	19,198.0
Caboolture	42,060	1,137.4	8,154	109.9	38,292	318.3	36.5	29,087	116.5	1,682.1
Caloundra	26,636	670.5	7,146	96.8	28,023	223.2	39.7	27,062	171.8	1,162.3
Esk	5,041	136.9	1,262	13.9	4,889	42.1	36.2	3,462	11.2	204.1
Gatton	4,582	112.2	1,138	14.6	3,147	26.0	22.0	3,468	13.0	165.9
Gold Coast	173,045	4,763.9	35,139	558.0	132,751	1,046.1	33.5	127,923	981.7	7,349.7
Ipswich	53,524	1,557.3	6,614	90.5	38,607	328.8	33.1	31,499	93.5	2,070.1
Kilcoy	1,070	27.3	322	3.2	981	8.1	32.5	889	2.4	41.0
Laidley	4,939	128.3	1,108	13.4	4,748	40.5	39.6	3,170	9.1	191.3
Logan	73,335	2,062.3	10,917	177.3	48,410	397.4	31.6	35,897	115.3	2,752.2
Maroochy	47,539	1,228.9	11,959	159.0	43,510	339.2	37.0	45,574	271.9	1,999.0
Noosa	16,324	400.4	4,540	56.8	15,948	127.6	39.3	16,452	122.9	707.8
Pine Rivers	58,663	1,859.7	8,026	129.7	23,277	175.4	20.7	41,798	183.4	2,348.3
Redcliffe	18,949	535.0	2,976	45.5	19,614	165.3	42.0	14,976	97.4	843.2
Redland	51,912	1,603.5	8,373	137.0	28,864	222.2	26.8	39,080	201.2	2,163.9
Toowoomba	40,812	1,153.1	6,634	99.5	27,084	218.5	32.5	34,194	161.8	1,632.9
SEQ	**1,066,587**	**32,273**	**176,041**	**2,885**	**693,625**	**5,471**	**28.1**	**819,634**	**4,798**	**45,426**
Queensland	1,540,397	45,882	280,728	4,527	1,035,776	8,214	28.5	1,169,861	6,142	64,765.1

[a] Other includes own unincorporated business, investment, superannuation and annuity, and any other source of personal income
[b] Aged 15 and over
Source: ABS Experimental Estimates of Personal Income for Small Areas, Taxation and Income Support Data,cat no. 6524.0.55.001 (unpublished data)

ED01.6 Source of personal income by local government area. Date range: 30/06/2001 - 30/06/2001

SEQ ED02 Educational attainment

Levels of educational attainment of people over 15 years of age in South East Queensland

State of Environment Theme: Human settlements

Results

Educational qualifications

Of persons aged 15 years and over usually resident in the SEQ region at the time of the 2001 Census, 44.7 % (846,819 persons) held post-school educational qualifications, compared with 43.0 % (1,189,280 persons) in Queensland as a whole (see ED02.1 above).

The highest proportion with a post-school qualification was recorded in Brisbane City (49.3 %), followed by Noosa Shire (48.4 %), Maroochy Shire (45.8 %) and Gold Coast City (45.5 %). The lowest proportions of persons with post-school qualifications were recorded in Boonah Shire (32.7 %) and Kilcoy Shire (33.0 %).

Educational Attainment – Highest post-school educational qualification[a] by local government area							
Local government area	Postgraduate and bachelor degree	Graduate diploma and graduate certificate	Advanced diploma and diploma	Certificate	Total[b]	Total population 15+	Proportion aged 15 and over with qualifi-cations (%)
Beaudesert	2,418	344	2,056	7,365	16,114	39,427	40.9
Boonah	351	45	261	813	2,065	6,310	32.7
Brisbane	124,249	13,435	49,140	94,845	350,500	711,318	49.3
Caboolture	3,973	592	3,765	14,783	32,314	84,888	38.1
Caloundra	3,889	543	3,232	10,375	24,587	58,202	42.2
Esk	484	59	430	1,610	3,782	10,888	34.7
Gatton	748	92	531	1,519	3,961	11,524	34.4
Gold Coast	25,854	2,434	18,902	57,292	148,574	326,705	45.5
Ipswich	4,940	689	4,160	15,823	35,793	93,444	38.3
Kilcoy	83	25	94	353	816	2,473	33.0
Laidley	400	64	364	1,387	3,346	9,519	35.2
Logan	6,641	753	5,525	20,612	44,704	121,992	36.6
Maroochy	8,022	1,094	6,170	17,772	43,972	96,012	45.8
Noosa	2,852	391	2,363	6,139	16,142	33,385	48.4
Pine Rivers	8,495	1,167	6,021	16,407	38,778	89,840	43.2
Redcliffe	2,367	296	1,908	6,362	15,579	39,777	39.2
Redland	7,046	880	5,630	16,414	38,379	88,671	43.3
Toowoomba	6,645	875	3,643	9,513	27,413	68,221	40.2
SEQ	**209,457**	**23,778**	**114,195**	**299,384**	**846,819**	**1,892,596**	**44.7**
Queensland	267,505	30,997	151,868	441,930	1,189,280	2,762,643	43.0
SEQ % of Queensland	78.3	76.7	75.2	67.7	71.2	68.5	na

ED02.1 Highest post-school educational qualification by local government area. Date range: 20/08/2001 - 20/08/2001

Related links

Qld Office of Economic and Statistical Research

http://www.oesr.qld.gov.au/index.shtml

SEQ ED03 Innovation in industry

Knowledge industries in South East Queensland

State of Environment Theme: Human settlements

Results

Distribution of knowledge-intensive industries

Local government area

ED03.1 shows the number of knowledge-intensive jobs and the proportion of all jobs that are knowledge-intensive for each local government area in the SEQ region. The data is derived from information collected in the 2001 Census of Population and Housing, and is based on the place of work rather than the usual residence of the employee.

Within the SEQ region the highest proportion of knowledge-intensive industries was recorded in Brisbane City (46.3 %), followed by Ipswich City (41.8 %) and Toowoomba City (41.7 %). The lowest proportions were recorded in Kilcoy Shire (22.3 %) and Boonah Shire (26.3 %).

Statistical local area

ED03.2 shows the distribution of employed persons in knowledge-intensive industries within the statistical local areas of the SEQ region at the time of the 2001 Census. The data shows the location of knowledge-intensive industries, rather than the usual residence of persons employed in the industries.

High proportions of knowledge-intensive jobs were located in the western suburbs and inner city areas of Brisbane City, alongside the South East Freeway transport corridor and in eastern Toowoomba. The proportions were comparatively lower in the western rural parts of the SEQ region.

Related links

Qld Office of Economic and Statistical Research http://www.oesr.qld.gov.au/index.shtml

Related indicators

SEQ ED01; SEQ ED02

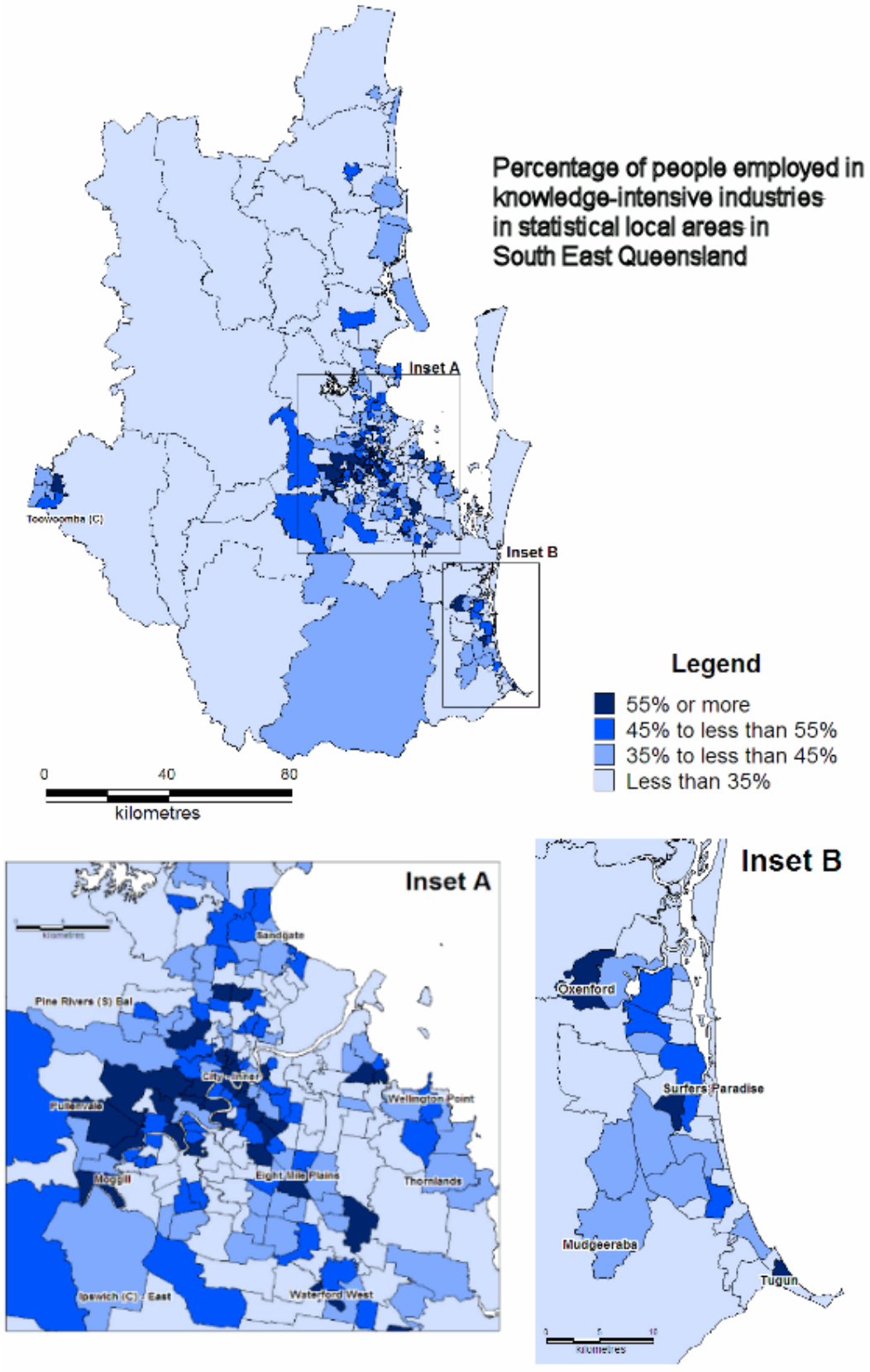
Distribution of knowledge intensive industries by local government area, employed persons by work destination, 2001			
Local government area	**Employed persons**		
	Knowledge-intensive industries		**All industries**
	(persons)	**(%)[a]**	**(persons)**
Beaudesert (S)	3,810	34.2	11,133
Boonah (S)	583	26.3	2,216
Brisbane (C)	230,382	46.3	497,101
Caboolture (S)	8,334	34.2	24,346
Caloundra (C)	6,555	32.6	20,124
Esk (S)	1,005	27.6	3,642
Gatton (S)	1,635	29.2	5,591
Gold Coast (C)	52,195	36.2	144,375
Ipswich (C)	16,287	41.8	38,992
Kilcoy (S)	274	22.3	1,230
Laidley (S)	681	31.3	2,173
Logan (C)	15,123	34.1	44,307
Maroochy (S)	16,057	37.8	42,432
Noosa (S)	4,741	33.7	14,058
Pine Rivers (S)	8,843	34.7	25,515
Redcliffe (C)	5,045	41.0	12,301
Redland (S)	9,789	37.4	26,201
Toowoomba (C)	16,985	41.7	40,775
SEQ	**398,324**	**41.6**	**956,512**

C = City S = Shire

[a] Proportion of all industries.

Source: ABS, Census of Population and Housing, 2001 Journey to work (unpublished data).

ED03.1 Employed persons by knowledge intensive industries, South East Queensland region, 2001. Date range: 20/08/2001 - 20/08/2001



ED03.2 Employed persons by knowledge-intensive industries, South East Queensland. Date range: 20/08/2001 - 20/08/2001

SEQ ED04 Tourist visitor numbers

Number of visitor nights spent by domestic and international tourists and reasons for visiting.

State of Environment Theme: Human settlements

Results

There were 1,553,200 international visitors to the SEQ region in the year ended (YE) December 2005. Almost three quarters of all international visitors to Queensland made a stopover in the SEQ region (73 %). International visitors to SEQ spent 18,559,500 visitor nights in the region, accounting for 62 % of all international visitor nights spent in Queensland in the YE December 2005.

Over the three years to December 2005 international visitors to the SEQ region increased by 4 % each year, while visitor nights increased by 7 % each year over the same period. International visitors' average length of stay in the SEQ region was 11.9 nights, an increase of 0.9 nights from the YE December 2002.

There were 10,229,000 domestic visitors to the SEQ region in the YE December 2005. Over half of all domestic visitors to Queensland made a stopover in the SEQ region (62 %). Domestic visitors to SEQ spent 47 557 500 visitor nights in the region, accounting for 57 % of all domestic visitor nights spent in Queensland in the YE December 2005.

Over the three years to December 2005 domestic visitors to the SEQ region increased marginally by 1 % each year, while visitor nights has remained stable over the same period. Domestic visitors' average length of stay in the SEQ region was 4.2 nights, a decline of 0.2 nights from the YE December 2002.

International holiday visitors - There were 1 065 500 international holiday visitors to the SEQ region in the YE December 2005. International holiday visitors to SEQ spent 7,843,000 visitor nights in the region.

Over the three years to December 2005 international holiday visitors to the SEQ region increased by 2 % each year, visitor nights also increased (up 8 % each year over the same period). International holiday visitors stayed for an average of 7.4 nights in the SEQ region, an increase of 1.0 nights from the YE December 2002.

Domestic holiday visitors - There were 4,615,000 domestic holiday visitors to the SEQ region in the YE December 2005. Domestic holiday visitors to SEQ spent 22,145,000 visitor nights in the region.

Over the three years to December 2005 domestic holiday visitors to the SEQ region declined by 2 % each year, visitor nights also declined (down 3 % each year over the same period). Domestic holiday visitors stayed for an average of 4.8 nights in the SEQ region, a decline of 0.1 nights from the YE December 2002.

International visiting friends or relatives (VFR) visitors - There were 372,100 international VFR visitors to the SEQ region in the YE December 2005. International VFR visitors to SEQ spent 4,893,000 visitor nights in the region.

Over the three years to December 2005 international VFR visitors to the SEQ region experienced strong growth increasing by 9 % each year, visitor nights also increased (up 4 % each year over the same period). International VFR visitors stayed for an average of 13.1 nights in the SEQ region, a decline of 2.0 nights from the YE December 2002.

Domestic VFR visitors - There were 3,656,000 domestic VFR visitors to the SEQ region in the YE December 2005. Domestic VFR visitors to SEQ spent 13,501,000 visitor nights in the region.

Over the three years to December 2005 domestic VFR visitors to the SEQ region increased by 6 % each year, visitor nights also increased (up 5 % each year over the same period). Domestic VFR visitors stayed for an average of 3.7 nights in the SEQ region, no change from the YE December 2002.

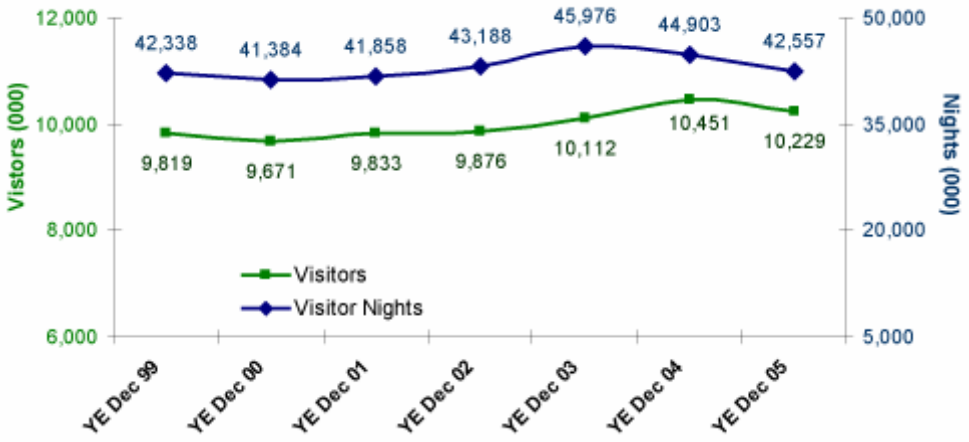
Half of all international visitor nights to the SEQ region were spent by holiday visitors (50 %), while 19 % of the nights were VFR visitors and 5 % were spent by international business visitors.

Over half of all international holiday visitor nights to Queensland were spent in the SEQ region in the YE December 2005 (55 %), while three quarters of all VFR nights to the state were spent in SEQ (74 %).

Just over half of all domestic visitor nights to the SEQ region were spent by holiday visitors (52 %), while 32 % of the nights were VFR visitors and 10% were spent by international business visitors.

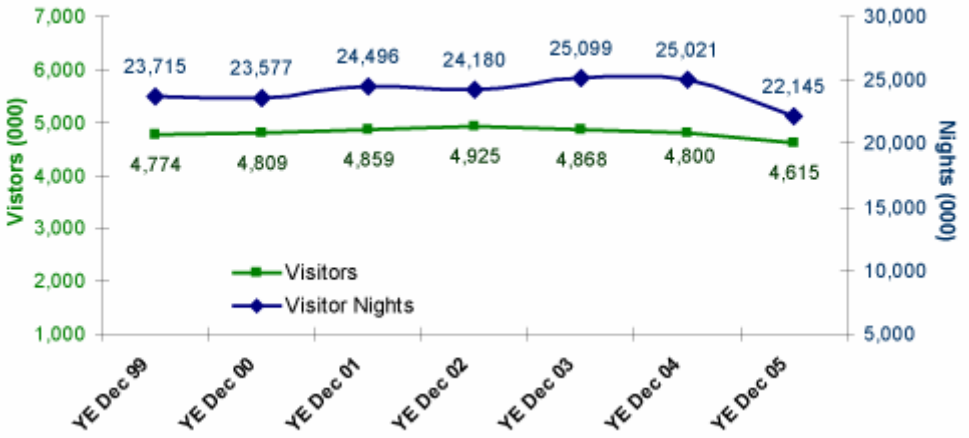
Over half of all domestic holiday visitor nights to Queensland were spent in the SEQ region in the YE December 2005 (60 %). Three in five of the total VFR visitor nights to Queensland were spent in SEQ (62 %).

ED4.1 International visitor and visitor nights in South East Queensland. Date range: 1/01/1999 - 31/12/2005



ED4.2 Domestic visitor and visitor nights in South East Queensland. Date range: 1/01/1999 - 31/12/2005

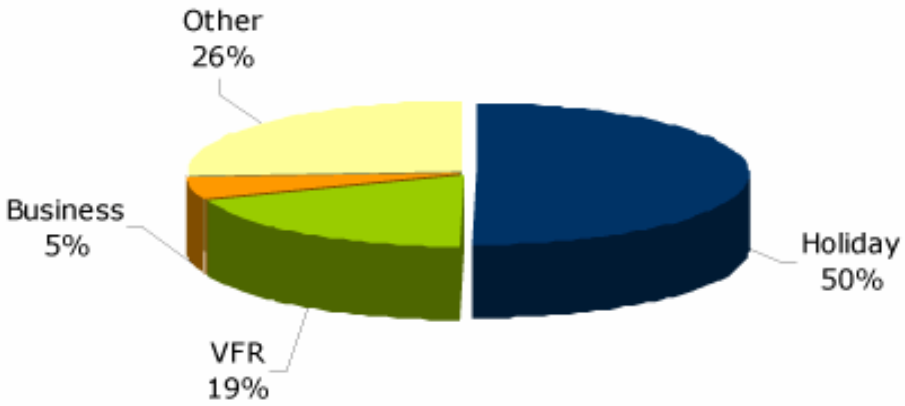
ED4.3 International holiday visitors and visitor nights in South East Queensland. Date range: 1/06/2004 - 1/06/2004



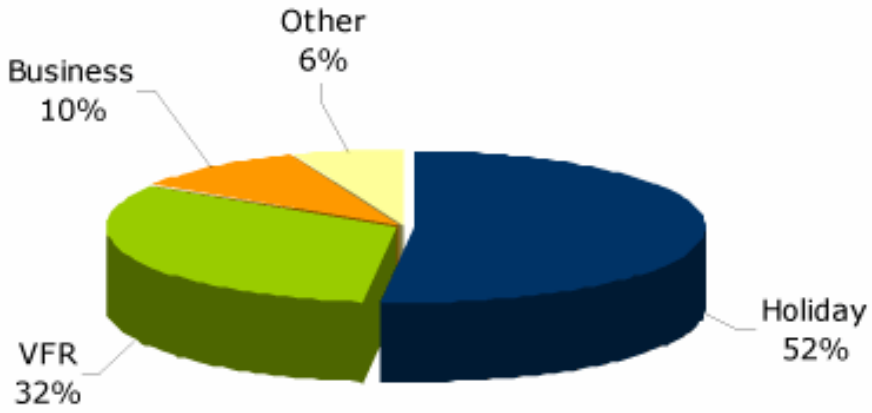
ED4.4 Domestic holiday visitors and visitor nights in South East Queensland. Date range: 1/01/1999 - 31/12/2005

ED4.5 International 'visiting friends and/or relatives' visitors and visitor nights in South East Queensland. Date range: 1/06/2004 - 1/06/2005

ED4.6 Domestic 'visiting friends and/or relatives' visitors and visitor nights in South East Queensland. Date range: 1/06/2004 - 1/06/2005



ED4.7 International visitors' main reason for visit - Visitor nights for year ending December 2005. Date range: 1/01/2005 - 31/12/2005



ED4.8 Domestic visitors' purpose of visit - Visitor nights for year ending December 2005. Date range: 1/01/2005 - 31/12/2005

Related links

Tourism Queensland - Research

http://www.tq.com.au/research/

Desired Regional Outcome 10—Infrastructure

Regional infrastructure and services are planned, coordinated and delivered in a timely manner to support existing and future settlement patterns and desired community outcomes.

SEQ IN01 Energy use

Energy use by sector

State of Environment Theme: Human settlements

Results

The data represent average daily electricity use for non-contestable customers in the ENERGEX franchise region. Non-contestable customers are those on a Government regulated tariff. Data from contestable customers are excluded due to the commercial sensitivity of the information. The ENERGEX franchise region is based on SEQ.

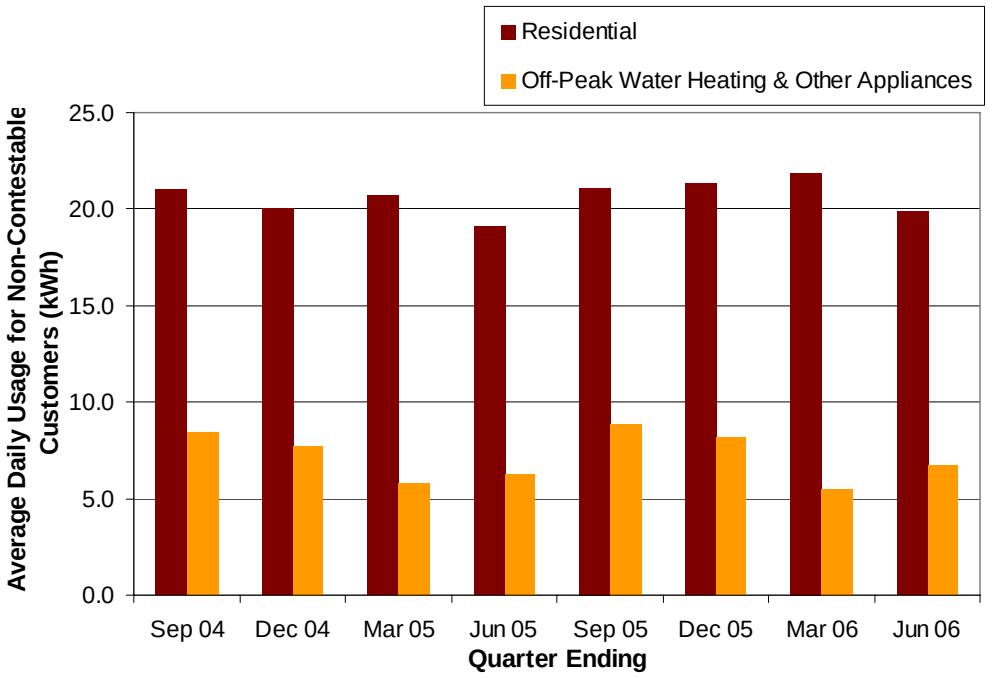
There are three sectors for non-contestable customers: residential, commercial/industrial, and rural. A fourth category is included, the residential use of off-peak tariffs by non-contestable customers. These tariffs are predominantly used to power electric hot water systems and appliances like pool pumps.

Average daily electricity use shows strong seasonality per quarter. The summer months of the March quarter are influential. The commercial/industrial sector seems to be affected by air-conditioning usage, while consumption in the off-peak residential sector displays the opposite pattern because the demand for hot water is reduced in summer. The rural sector in SEQ also lowers electricity consumption in summer.

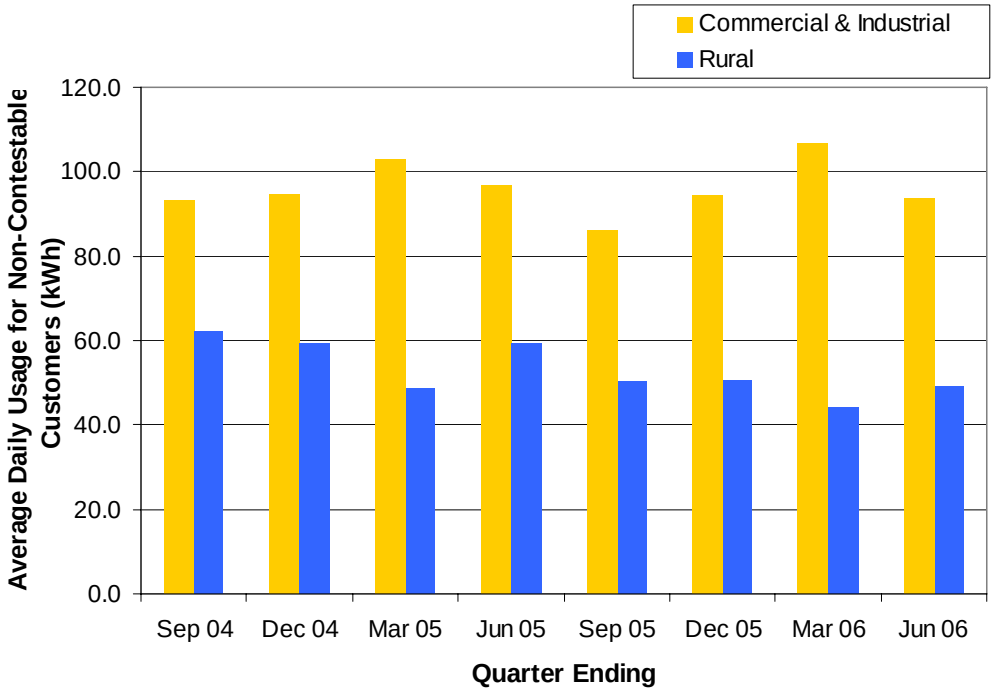
The residential sector has the smallest variation between quarters. In households, air-conditioning usage presently only operates for a few hours a day in summer and therefore has less of an impact than in the commercial/industrial sector.

Average daily electricity use for the residential sector is trending upwards, with average use in any quarter being higher than in the same quarter in the previous year. Apart from the March quarter, the same is true for average residential off-peak use. The increase in the residential and off-peak sectors is most likely due to an increase in the number of household electrical appliances. Growth in off-peak residential usage should start to slow. As part of sustainable housing regulations, electric resistance water heaters in new housing are banned in Queensland (since 1 July 2006).

In the commercial/industrial sector, apart from the March quarter the trend is downwards or flat. Prevailing weather conditions may have been a factor, but businesses may also have been reducing overall energy use to save costs. Further data will be needed to show whether a trend has been established. The average electricity use in the rural sector is currently trending down, driven by the wide spread drought in the South East corner.



IN01.1 Energy Use by Sector - Residential and Off-Peak Electricity Use. Date range: 1/07/2004 - 30/06/2006



IN01.2 Energy Use by Sector - Commercial/Industrial and Rural Electricity Use. Date range: 1/07/2004 - 30/06/2006

Related links

EPA – Energy
http://www.epa.qld.gov.au/environmental_management/sustainability/energy/

SEQ IN02 Solid waste generation and disposal

Waste management statistics for South East Queensland

State of Environment Theme: Human settlements

Results

Data coverage is for waste managed by local governments in SEQ only. It does not include waste managed by private operators.

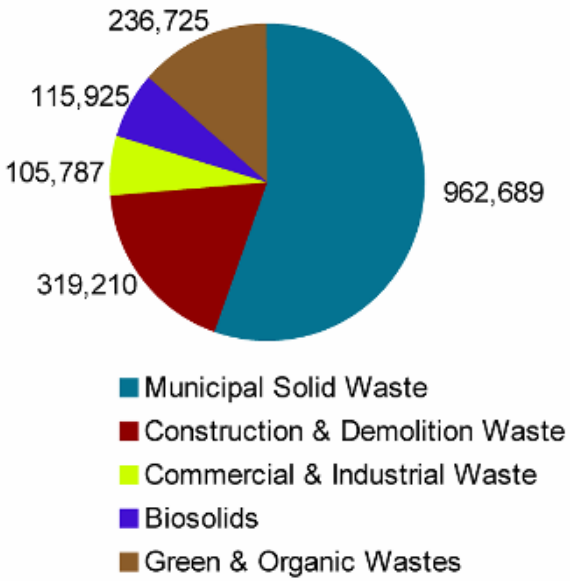
The data is derived from a survey of local governments, and as such, the EPA cannot guarantee the accuracy and integrity of the data.

The data is also incomplete, with three out of eighteen councils in the study area failing to provide data. Overall, the data is based on responses from councils containing 99 % of the population of the study area.

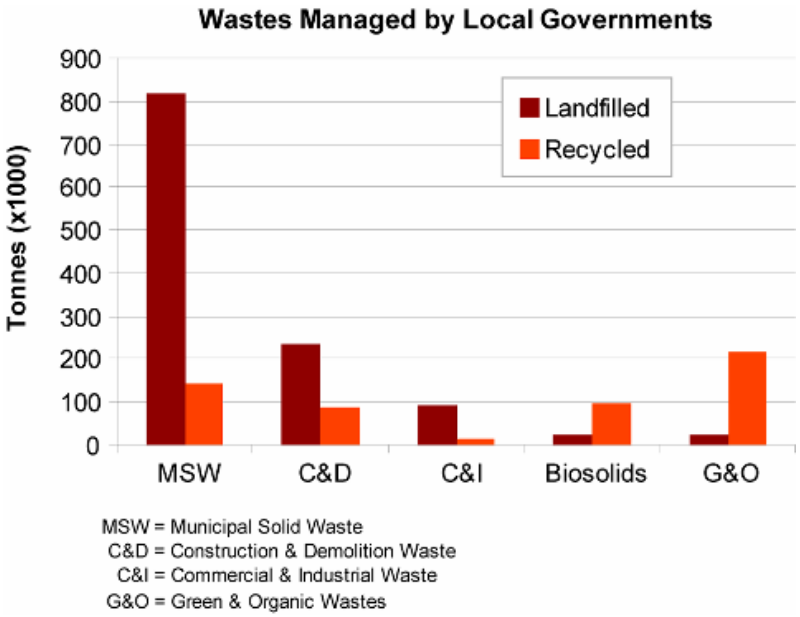
Local governments managed a total of 1 740 336 tonnes of solid waste during the 2003-04 reporting period. Approximately 55 % of that material was municipal solid waste, approximately 18 % was construction and demolition waste, about 13 % was green and organic wastes, with biosolids and commercial and industrial waste making up the remaining 14 %.

Analysis of the waste stream revealed that 15 % of municipal solid waste was recycled. The level of recovery for biosolids and green and organic wastes were much higher, with 82 % and 90 % recycled respectively.

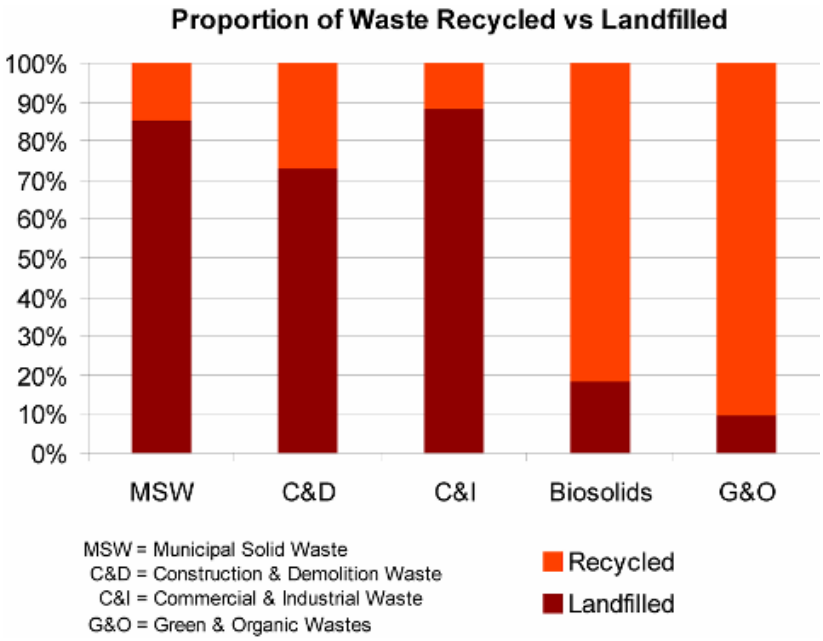
Solid Waste Streams Managed by Local Governments (tonnes)



IN02.1 Solid Waste Streams Managed by Local Governments in SEQ. Date range: 1/07/2003 - 30/06/2004



IN02.2 Amounts of Waste Landfilled and Recycled by Local Governments in SEQ. Date range: 1/07/2003 - 30/06/2004



IN02.3 Proportions of Waste Landfilled and Recycled by Local Governments in SEQ. Date range: 1/07/2003 - 30/06/2004

Related links

EPA - Waste

http://www.epa.qld.gov.au/environmental_management/waste/

Desired Regional Outcome 11—Water Management

Water in the region is managed on a sustainable and integrated basis to provide adequate supplies for human and environmental uses.

SEQ WM02 Wastewater treatment and disposal

Nutrient discharge from wastewater treatment plants in South East Queensland

State of Environment Theme: Estuaries and sea

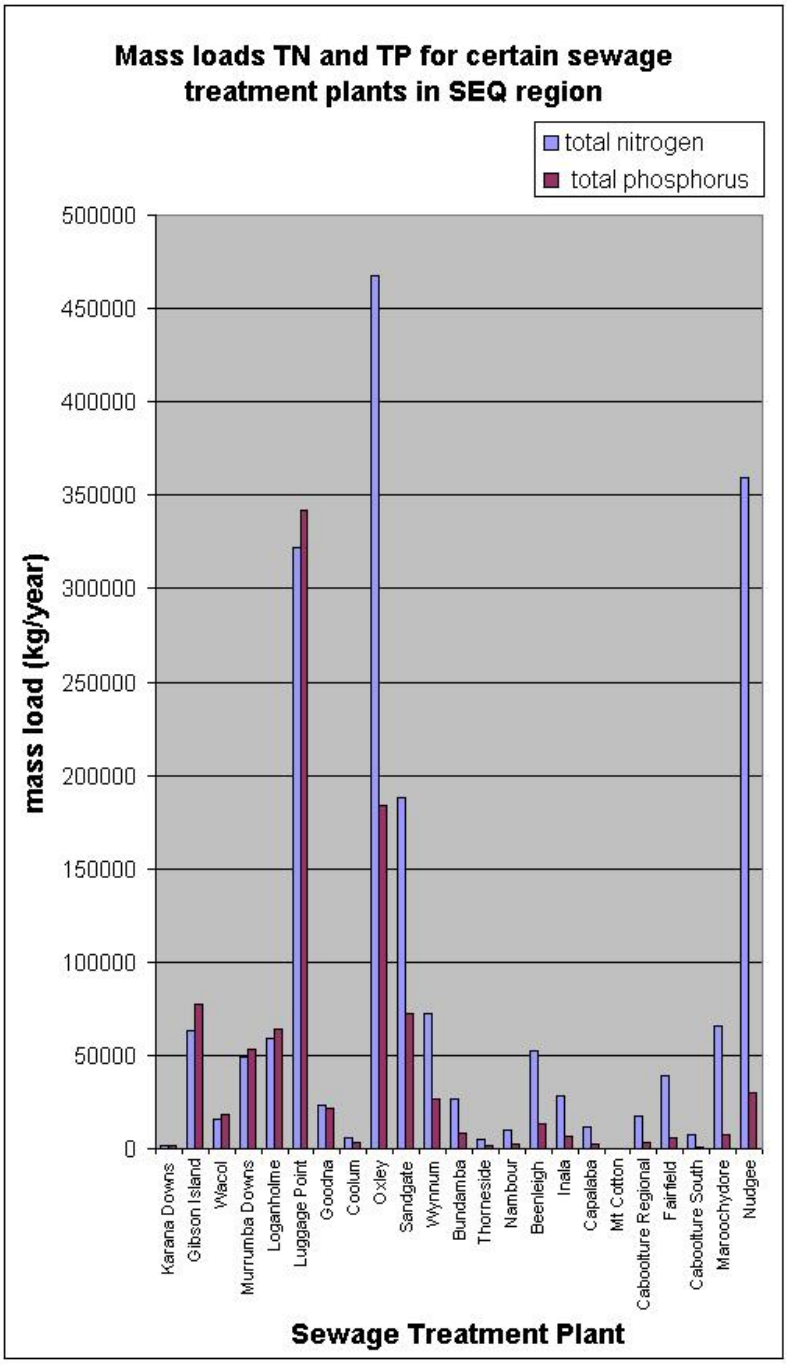
Results

The figure presents annual mass loads of total nitrogen (TN) and total phosphorus (TP) for discharges from certain Sewage Treatment Plants (STPs) located in the SEQ region. The data covers most STPs discharging to estuarine and marine waters. The notable exclusions are plants operated by Gold Coast and Redcliffe City Councils and Noosa Shire Council, the Bribie Island plant operated by Caloundra City Council, and the Dayboro and Brendale plants operated by Pine Rivers Shire Council. The data is collected via routine monitoring by sewage treatment plant operators as required under EPA approvals.

The majority of plants have discharge rates less than 50,000 kg per year TN and TP. Only nine from 22 facilities exceeded 50,000 kg TN per year, whereas only six facilities exceeded 50,000 kg TP. The largest discharges come from the Oxley, Nudgee, Luggage Point and Sandgate facilities.

Most nutrients discharged come from the major plants: The largest nine (9) facilities accounted for 87% of TN, and 86 % of TP loads.

The variable nitrogen: phosphorous ratios (ranging from 0.73 to 12) reflect the high variability of STP treatment efficiency.



WM02.1 Estuarine and marine sewage discharges 2004-05. Date range: 1/01/1997 - 30/06/2005

Related indicators

SEQ NE01

Related links

EPA - Wastewater

http://www.epa.qld.gov.au/environmental_management/water/wastewater/

SEQ WM03 Regional water availability (index of available water vs demand)

Water availability versus demand in South East Queensland

State of Environment Theme: Human settlements

Results

An assessment of regional water use production/ consumption has been undertaken, through review of the water production/consumption records of the thirteen participating SEQ Local Governments and other water users over the past 5 years.

The demand of 1141 ML /d represents 75.3 % of the current estimated yield in water resources in SEQ. Under normal or average climatic conditions there is sufficient available source to meet current regional demand requirements (SEQWater Technical Report, Series No. 1).

Local government or other water user	2005/06 Business as usual demand projection (ML/a)	2005/06 Business as usual demand projection (ML/d)	% Current available yield	% Current utilised yield
Brisbane, Gold Coast, Ipswich, Logan, Pine Rivers, Caboolture, Redcliffe, Beaudesert, Kilcoy, Esk, Gatton, Laidley	375,950	1,030	68%	90.3%
Other water users[1]	40,515[2]	111[2]	7.3%	9.7%
Regional total	**416,465**	**1,141**	**75.3%**	**100%**

[1] Other water users include Swanbank power station, Tarong power station, rural irrigation and industry.
[2] Total value interpolated from Figure 17 of Stage 1 report of the SEQ Regional Water Supply Strategy (SEQROC, May 2004).

WM03.1 Business as usual demand projections for SEQ 2005-2006. Date range: 1/01/2005 - 31/12/2006

Desired Regional Outcome 12—Integrated Transport

A connected and accessible region based on an integrated transport system that supports more compact urban growth and efficient travel; connects people, places, goods and services; and promotes public transport use, walking and cycling.

SEQ IT01 Car Availability

This indicator depicts the proportion of households by number of registered vehicles in the BSD. Each category represents the number of registered vehicles (0, 1, 2, 3 or more) at each individual household.

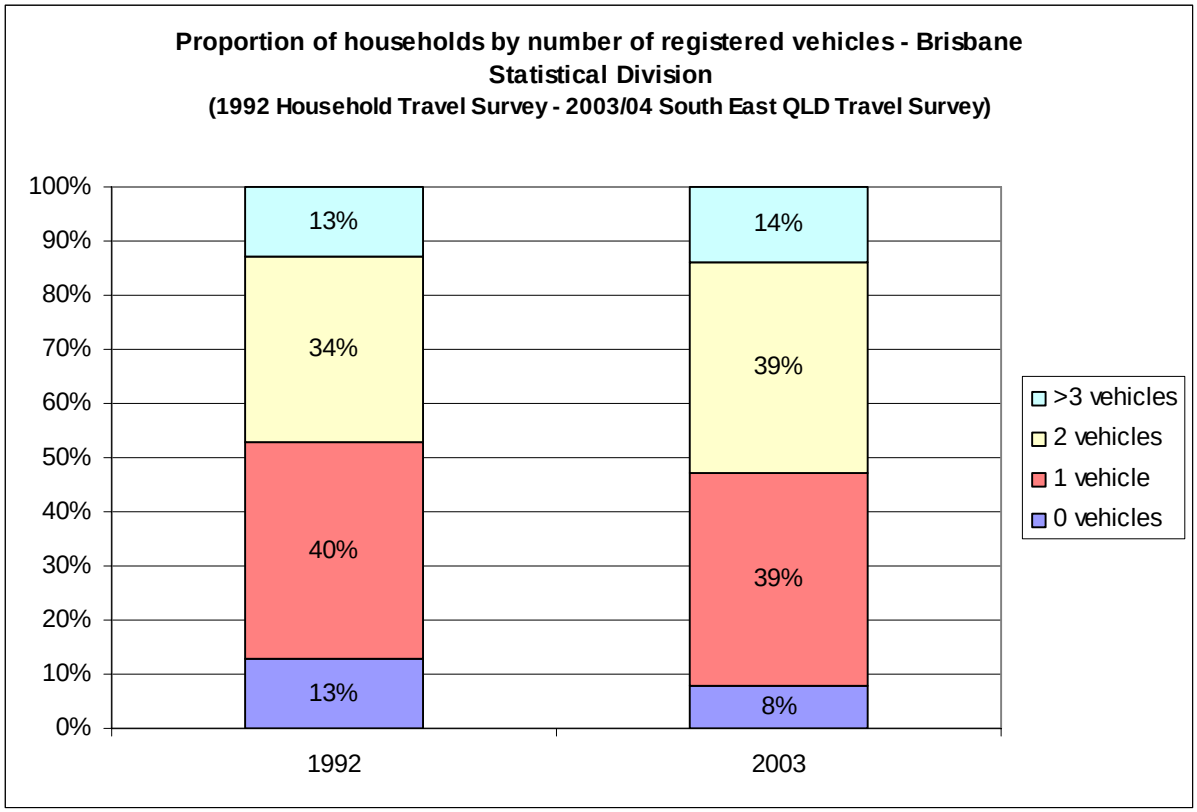
State of Environment Theme: Human settlements

Results

Car availability in SEQ per household is now higher than ever before. Today many households in the Brisbane Statistical Division (BSD) have two or more vehicles and on average 80 % of trips are made by private motor vehicle, making this the preferred mode of travel. Many of these trips are by single occupancy vehicle leading to increases in unnecessary traffic on our roads.

The number of vehicles each household has is increasing over time, despite the trend in decreasing average number of persons per household. Data available from household travel surveys for the BSD area shows the proportion of households without any vehicles has declined from 13 % in 1992 to 8 % in 2003/04. The proportion of households with one vehicle has reduced from 40 % to 39 % over the same period. The proportions of households with two vehicles and three or more vehicles have increased from 34 % to 39 % and 13 % to 14 % respectively.

The heavy reliance on motor vehicles and its impact have been further examined in *Smart Travel Choices for South East Queensland: A Transport Green Paper*, produced by Queensland Transport in 2005. This document is available to download from http://www.transport.qld.gov.au/smart.travel.choices.



IT01.1 Car Availability. Date range: 9/10/1992 - 26/03/2004

Related indicators

SEQ IT02

SEQ IT04

SEQ IT05

SEQ IT06

SEQ IT07

SEQ IT08

Related links

Smart Travel Choices for South East Queensland

http://www.transport.qld.gov.au/smart.travel.choices

SEQ IT02 Distance Travelled by Passenger Vehicles—Total VKT per passenger vehicle

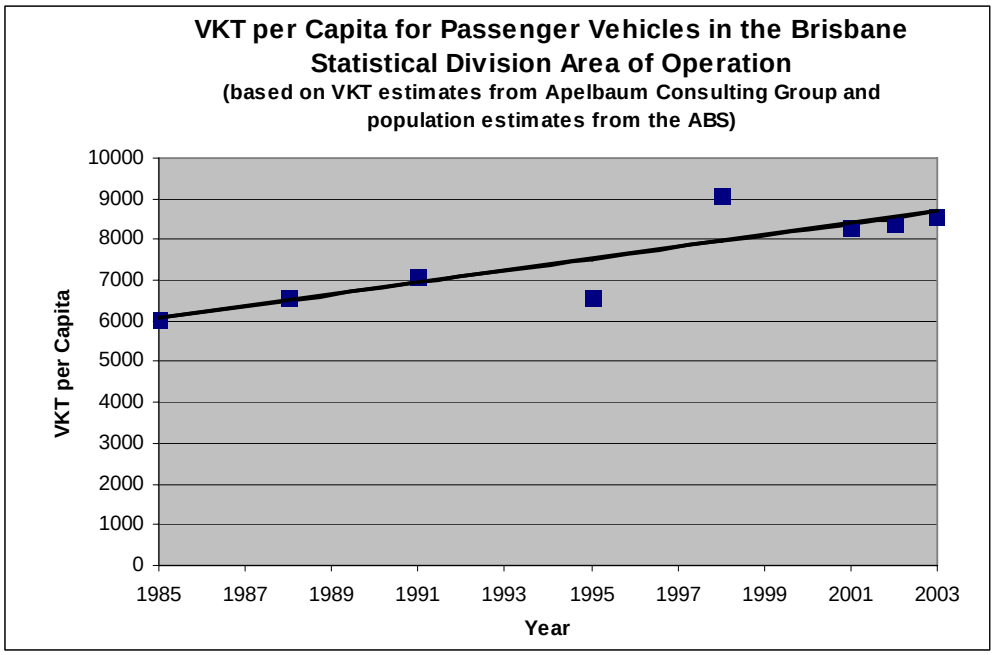
This indicator identifies the total annual distance travelled in the Brisbane Statistical Division (BSD)by passenger vehicles divided by the BSD population.

State of Environment Theme: Human settlements

Results

We are driving more and travelling longer distances than ever before in SEQ. The average distance travelled in the Brisbane Statistical Division (BSD) per capita by passenger vehicles is estimated to be approximately 8570 kilometres per annum in 2003. Since 1985 the annual Vehicle Kilometres Travelled (VKT) per capita has grown by 42.3 %. This means that VKT is growing faster than the population. A key factor in this increase is our preference for low density suburban living. Many people are choosing to live considerable distances from where they work, recreate or pursue other activities, which increases the amount of VKT.

The distances we travel and its impact have been extensively covered in *Smart Travel Choices for South East Queensland: A Transport Green Paper*, produced by Queensland Transport in 2005. This document is available for download at http://www.transport.qld.gov.au/smart.travel.choices.



IT02.1 VKT per Capita for Passenger Vehicles in the Brisbane Statistical Division Area of Operation. Date range: 1985 - 2003

Related indicators

SEQ IT01; SEQ IT04; SEQ IT05; SEQ IT06; SEQ IT07; SEQ IT08

Related links

Smart Travel Choices for South East Queensland

http://www.transport.qld.gov.au/smart.travel.choices

SEQ IT04 Mode Share - Mode Share for Brisbane Statistical Division

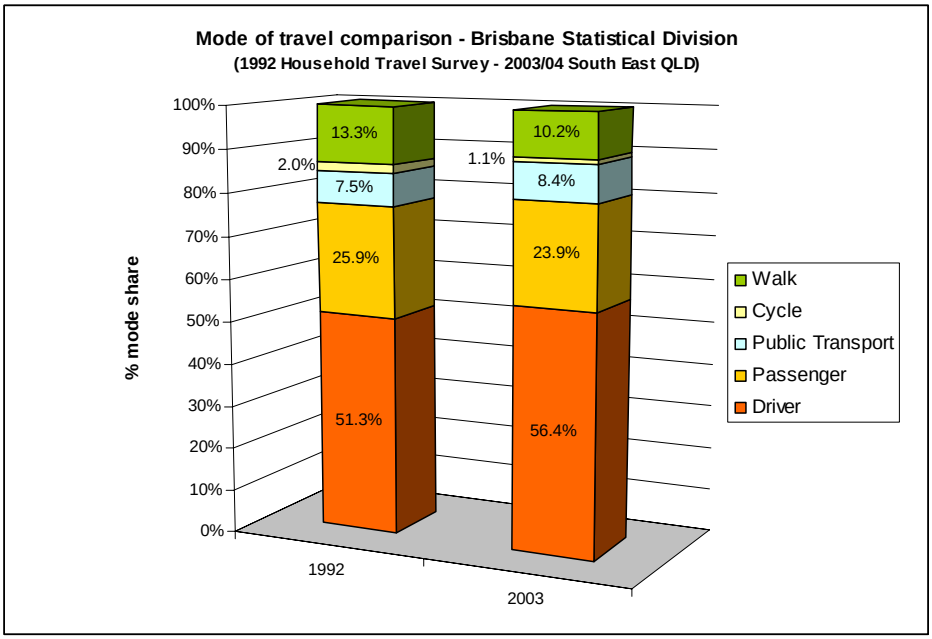
Trips undertaken by people living in Brisbane Statistical Division (BSD) expressed in terms of percentage of trips made by each mode.

State of Environment Theme: Human settlements

Results

Mode share of travel in SEQ has been dominated by the motor vehicle. In recent years public transport patronage in the Brisbane Statistical Division (BSD) has increased from seven to eight percent, as a share by mode, but walking and cycling trips have been replaced with trips by car. The majority of these trips are taken by drivers without passenger/s. Approximately 40 % of all current car trips could be replaced by walking, cycling and/or public transport.

Increasingly, the majority of travel in the region is by private vehicle. Data available from household travel surveys for the BSD area shows the share of trips by private vehicle as driver has increased from 51.3% in 1992 to 56.4% in 2003/04. The share of trips by private vehicle as passenger reduced from 25.9% to 23.9%. The mode share for public transport has increased slightly from 7.5% to 8.4% over the same period. Mode shares for walking and cycling reduced from 13.3% to 10.2% and 2.0% to 1.1% respectively. The current travel mode share in SEQ has been extensively covered in the *"Smart Travel Choices for South East Queensland: A Transport Green Paper"*, produced by Queensland Transport in 2005. This document is available to download at http://www.transport.qld.gov.au/smart.travel.choices.



IT04.1 Mode of Travel comparison - Brisbane Statistical Division. Date range: 9/10/1992 - 26/03/2004

Related indicators

SEQ IT01; SEQ IT02; SEQ IT05; SEQ IT06; SEQ IT07; SEQ IT08

Related links

Smart Travel Choices for South East Queensland
http://www.transport.qld.gov.au/smart.travel.choices

SEQ IT05 Road Congestion—Average Peak Hour Travel Speeds

Average urban travel speeds on a sample of major transport corridors in the Brisbane metropolitan area

State of Environment Theme: Human settlements

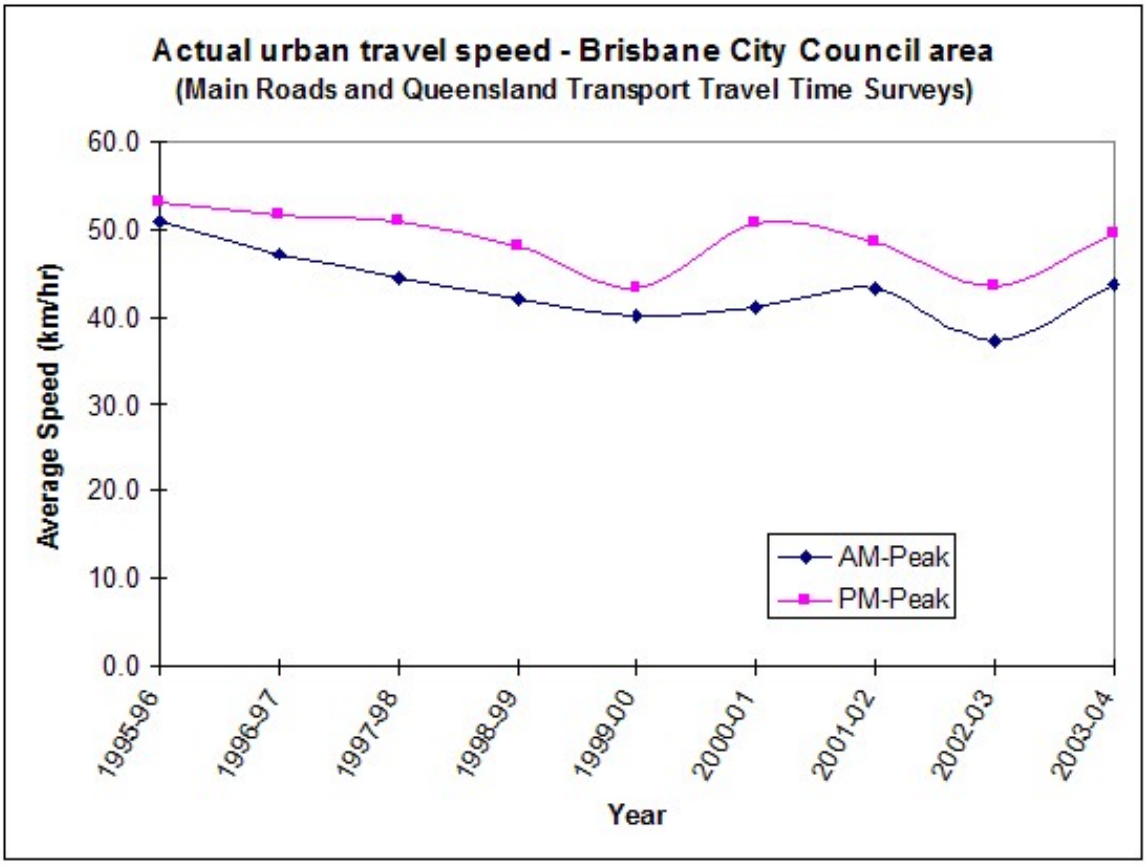
Results

The SEQ road network is an essential ingredient for social interaction, trade and socio-economic development. The road network provides mobility for the work, business, education and leisure activities that make our region so liveable. Road transport accounts for the majority of total transport consumption in SEQ.

The average travel speeds for vehicles have fluctuated over the period since 1999/00, with improvement followed by deterioration a common pattern. This can be attributed to significant road projects occurring over this period such as the construction of the Pacific Motorway, Coronation Drive upgrade, completion of the Inner City Bypass, Logan Road improvements, Gateway/Airport Drive roundabout changes, and so on. Each of these and many other works undertaken in this time have both direct and indirect effects on the overall travel speed result.

The construction phase of each project has a rippling effect on the network and can impact on downstream and upstream travel performance with reduced speeds noted. The completion of each project impacts in a positive way by creating better travel flows due to more capacity and efficiency in the network. Over time the increasing traffic growth begins to consume the improvements and the trends in travel speed performance start showing decreases.

Travel speeds in the morning and evening peaks for journeys on the surveyed routes have held relatively steady in recent years. The average travel speed for the morning and afternoon peaks fell from 51 km/hr and 53 km/hr to 40.1 km/hr and 43.3 km/hr respectively from 1995/96 to 1999/00. However, the average travel speed for the morning and afternoon peaks increased to 43.7 km/hr and 49.4 km/hr by 2003/04. This is despite the growth in population and vehicle numbers in the same period.



IT05.1 Average urban travel speed on a sample of major transport corridors in the Brisbane Metropolitan area. Date range: 1/03/1996 - 1/08/2003

Related indicators

SEQ IT01

SEQ IT02

SEQ IT04

SEQ IT06

SEQ IT07

SEQ IT08

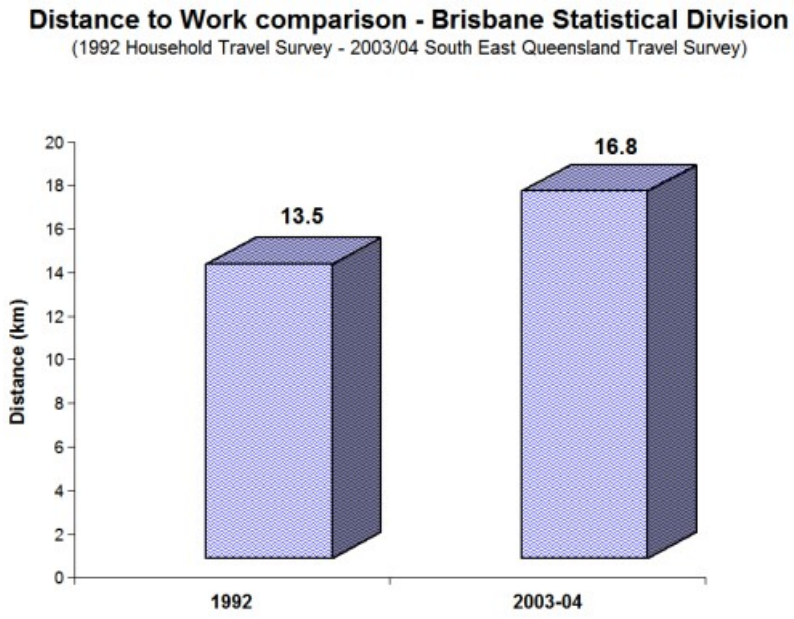
SEQ IT06 Average distance to work

Average distance to work in South East Queensland

State of Environment Theme: Human settlements

Results

People in SEQ are now travelling further than ever before. The average distance to work in the Brisbane Statistical Division (BSD) is estimated to have been approximately 16.8 km in 2003/04. This has grown from 13.5 km in 1992.
Together with rapid population growth, our preference for lower density living is creating challenges for land use and transport planning. As a result, the car is the preferred option for many trips as the distance is too great for walking and cycling, and public transport services are not a viable option in some areas.
Our urban form and the way we travel are further discussed in *Smart Travel Choices for South East Queensland: A Transport Green Paper,* produced by Queensland Transport in 2005. This document is available to download at http://www.transport.qld.gov.au/smart.travel.choices.



IT06.1 Distance to Work comparison - Brisbane Statistical Division. Date range: 9/10/1992 - 26/03/2004

Related indicators

SEQ IT01; SEQ IT02; SEQ IT04; SEQ IT05; SEQ IT07; SEQ IT08

Related links

Smart Travel Choices for South East Queensland

http://www.transport.qld.gov.au/smart.travel.choices

SEQ IT07 Freight movements

Freight Movements - Trend in Numbers of Commercial Vehicles

State of Environment Theme: Human settlements

Results

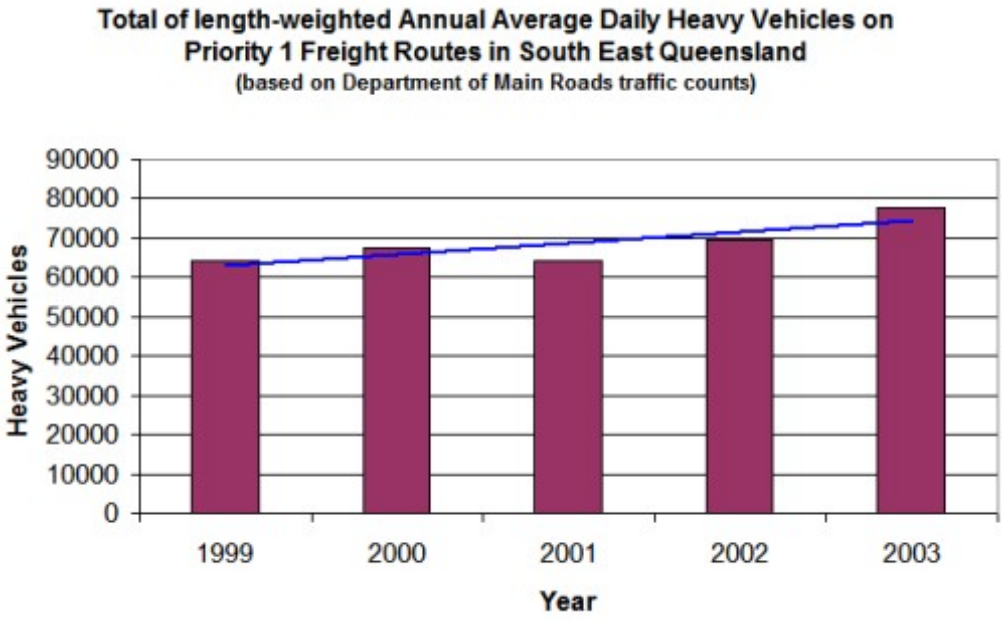
Freight movement in SEQ is expected to double in the next fifteen to twenty years. This is partly because the population will grow from 2.5 million to 3.5 million people and economic activity will expand to meet increased consumption. The Priority 1 freight routes facilitate high volume, business-to-business freight movements. They carry more than 1000 articulated trucks per day and are aligned with the major existing and emerging industrial areas in SEQ. Priority 2 freight routes are key links for the distribution of freight from factories or distribution centres to retail outlets. They generally carry more than 250 articulated trucks per day.

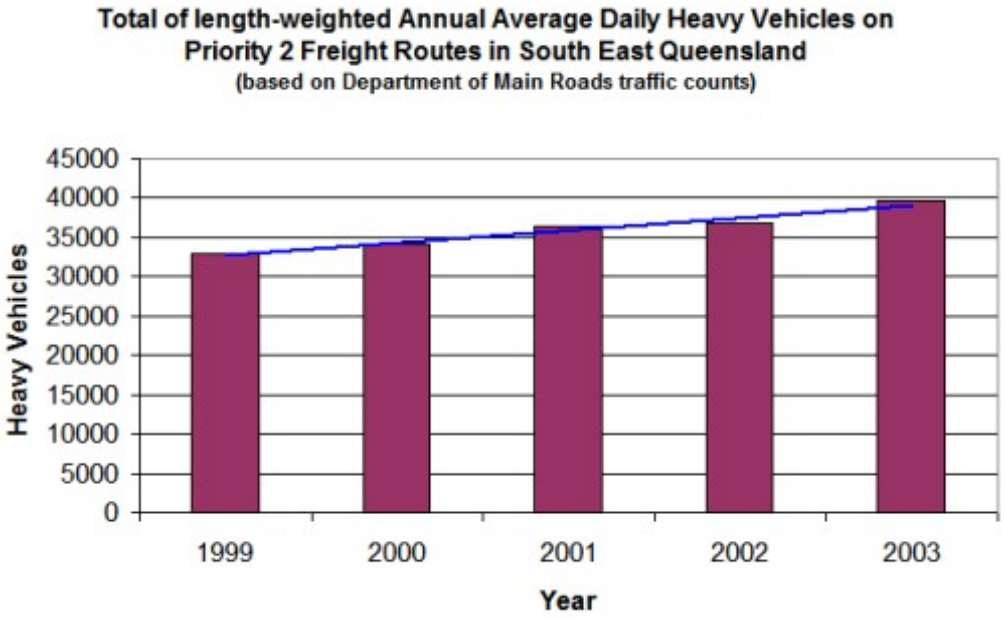
Outside the urban areas, the strategic road and rail freight routes travel:

- North - serving the provincial cities along the coast of Queensland
- South - serving northern NSW and Sydney
- West - serving the Darling Downs, regional NSW, Melbourne and the Northern Territory.

As the priority routes are developed, it is anticipated that fewer trucks will move through more sensitive urban environments. The trend data shows that there has been a 17 % increase in the total number of articulated and commercial vehicles on Priority 1 freight routes and a 20 % increase on Priority 2 freight routes in SEQ between 1999 and 2003.

The increase in freight on our roads and its impact are discussed further in *Smart Travel Choices for South East Queensland: A Transport Green Paper*, produced by Queensland Transport in 2005. This document is available to download at http://www.transport.qld.gov.au/smart.travel.choices.





IT07.1 Total of length-weighted annual average daily heavy vehicles on priority one freight routes. Date range: 1/01/1999 - 31/12/2003

Related indicators

SEQ IT01; SEQ IT02; SEQ IT04; SEQ IT05; SEQ IT06; SEQ IT08

Related links

Smart Travel Choices for South East Queensland

http://www.transport.qld.gov.au/smart.travel.choices

SEQ IT08 Public transport patronage

This indicator depicts the growth in public transport patronage in SEQ on TransLink services - Citytrain, buses and ferries.

State of Environment Theme: Human settlements

Results

South East Queensland is undergoing rapid population growth together with changing residential density and increasing urban sprawl. A key part of managing the demands that these challenges place on the region's transport system is to provide accessible public transport that is attractive, efficient fast, and easy to use. This is because high levels of public transport accessibility provide individual opportunity and choice above and beyond the privately owned car - in accessing people, places, goods and services. Transition towards increasing public transport accessibility is indicated by public transport patronage in SEQ, which increased from 124 million trips to 136.1 million trips in 2004-05 (an increase of 9.9%) and from 136.1 million to 151.7 million trips in 2005-06 (an increase of around 11.5%).

In future years, access to public transport will be further improved by a compact pattern of urban development and better self-containment of travel in sub-regions through the integration of transport and land use planning, as outlined by the SEQ Regional Plan. In the present, access to public transport is being greatly improved by the work of TransLink, a State Government agency that improves the integration of public transport services within SEQ.

TransLink is a cooperative initiative between Queensland Transport, Brisbane Transport (BT), Brisbane City Council (BCC), and 14 private bus operators. TransLink is responsible for one of the largest public transport networks in the world, extending from Noosa on the Sunshine Coast to Coolangatta on the Gold Coast and west to Helidon.

TransLink has four main roles:

- Ticketing and fare collection
- System planning (services and infrastructure)
- Marketing and passenger information
- Management of service delivery.

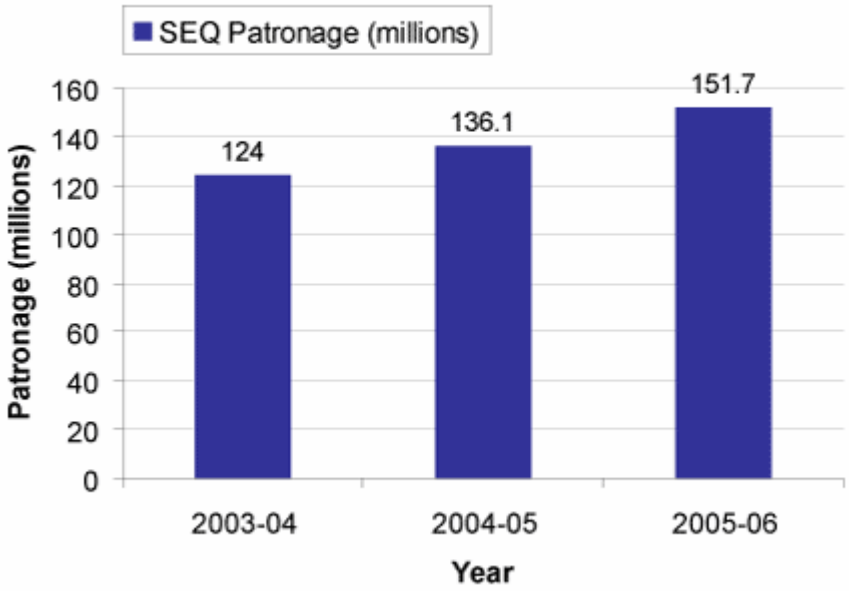
TransLink's purpose is to help people reach their destinations more easily and quickly by centrally planning and improving major transport routes, services and infrastructure.

TransLink integrated ticketing was introduced on 1 July 2004 as the first stage of an improved public transport system for SEQ. Integrated ticketing allows people to travel on participating buses, Citytrain and Brisbane City Council ferries using just one ticket across the system. With just one TransLink ticket, passengers can transfer between all TransLink services at no extra cost and explore new travel options.

The next stage of integrated ticketing is being rolled out with the introduction of the smart card automated fare collection system. The smart card will provide passengers with a seamless journey across the TransLink network, making public transport services even easier to catch.

The introduction of integrated ticketing has been a considerable advancement in the provision of flexible and convenient public transport. This, combined with new services, increased frequency on established routes, extra services for special events, new and

improved infrastructure and improved public transport information sources has contributed to patronage increases since TransLink commenced operating.



IT08.1 Annual Public Transport Patronage SEQ. Date range: 30/06/2004 - 30/06/2006

Related indicators

SEQ IT01

SEQ IT02

SEQ IT04

SEQ IT05

SEQ IT06

SEQ IT07

Related links

TransLink

http://www.translink.com.au

Smart Travel Choices for South East Queensland

http://www.transport.qld.gov.au/smart.travel.choices