



section **7** Growing with the State



Queenslanders will be able to access high quality and safe services organised to ensure the service is sustainable. Given the vast geographic areas of the State, this will mean building, and developing new and different ways of delivering services in the future.



Building for the future

In 2007-08 Queensland Health invested heavily in a statewide infrastructure program to improve health facilities for patients, their families, friends, staff and the greater community.

Many of Queensland's public hospitals were upgraded, expanded and redeveloped to improve access and enhance service delivery for patients.

Local residents are now being treated in improved and modern facilities following the redevelopment of the Dalby Hospital. Logan, Gympie and Redland have also benefited from upgrades to their hospitals' emergency departments.

In 2007, the first stages of the \$135.2 million redevelopment of the Prince Charles Hospital on Brisbane's northside were unveiled. Significant progress was achieved in the \$42.5 million redevelopment of Innisfail Hospital, overcoming delays due to the effects of Cyclone Larry.

A \$40 million emergency department was opened at Robina on the Gold Coast, as well as the new emergency department at the Redcliffe Hospital.

Gin Gin gained a new \$6.9 million hospital while a \$7.4 million community dental health clinic was opened at Rockhampton.

New community health centres were built in Eight Mile Plains and Nundah, with a health centre redevelopment completed for Gladstone. These centres act as an integrated "one stop shop" to ensure local residents have access to more health services, conveniently located together and closer to home.

Additionally new renal units opened at Robina and Redland hospitals, offering local residents a better quality of life and dialysis treatment closer to home. These important projects ensure Queenslanders have access to quality and sustainable health services.

Work continued on the Queensland Health Regional Accommodation Program to deliver quality accommodation to attract and retain

doctors, nurses and allied health staff in rural and remote communities and there was continued delivery of capital investment programs and projects. Queensland Health conducted a range of repair and maintenance initiatives and focused on the improvement of organisational arrangements and procedures, governance structures, reporting capability and overall risk management and accountability.

Queensland Health's extensive infrastructure program highlights a strong focus to build and maintain first-class health infrastructure to meet the challenge of a growing and ageing population, with increasing rates of chronic disease.

Major Hospitals Project Office

Queensland Health is embarking on a massive expansion of acute health services to meet the growing needs of residents in Queensland.

In 2007-08, planning and design commenced for the three new tertiary hospitals in South East Queensland – the Gold Coast University Hospital, Queensland Children's Hospital and Sunshine Coast University Hospital.

In May 2008, an additional two major hospital redevelopment projects were announced in North Queensland – Mackay Hospital and Cairns Hospital, bringing the investment in major hospital projects to \$4.6 billion. This is the largest investment by an Australian government in new hospital facilities. A Major Hospitals Project Officer was announced as the inaugural CEO to manage the operations.

During 2007-08, health service plans for each of the new facilities were prepared or reviewed. Site master plans for each of the new hospitals were completed to inform detailed planning and design. During this time, Queensland Health consulted with consumers, carers, staff and the wider community to seek their views and feedback on the proposed plans and service delivery options for the new hospitals.

Environmental protection for the future

Carbon Management Unit

The Carbon Management Unit of Queensland Health aims to provide continued leadership and assistance in achieving the following in collaboration with Queensland Health Capital Works and Asset Management Branch:

- continue to rollout the eco-efficiency program across Queensland Health building portfolio
- provide Queensland Health with a strategic energy efficiency plan required by the Strategic Energy Efficiency Policy introduced in April 2007
- assist health districts to prepare an individual energy management plan to meet Queensland Government timeframes and targets
- prepare a carbon reduction plan and targets to meet the needs of the *Green Paper, Carbon Pollution Reduction Scheme 2008* for Queensland Health
- collect quality data from health districts to comply with *The National Greenhouse and Energy Reporting Act 2007* reporting requirements on Scope 2 (purchased amount of metered electricity)
- prepare learning tools and a communication strategy to distribute education material on electricity reduction strategies and other sustainable issues and the resultant carbon reduction
- prepare a carbon footprint for a nominated health district to deliver a template for other sites in preparation of a carbon reduction plan.

Guaranteed savings annually

Facility	CO ² tonnes	Electricity (kwh)	Gas (Gj)	Water (Kls)
Bundaberg Hospital	1,045	1,029,974	417	18,330
Cairns Hospital	1,251	2,365,658	871	62,780
Eventide Nursing Home	1,133	1,251,111	n/a	9,370
Gladstone Hospital	857	809,444	2,914	4,974
Hervey Bay Hospital	1,625	1,534,119	1,721	n/a
Ipswich Hospital	4,154	4,103,055	n/a	23,400
Logan Hospital	2,253	2,125,482	2,400	32,248
Mackay Hospital	1,605	1,439,926	2,892	12,787
Nambour Hospital	3,206	4,242,777	n/a	23,500
Redcliffe Hospital	2,657	2,492,777	n/a	18,000
Caboolture Hospital	2,309	2,444,722	n/a	8,840
Rockhampton Hospital	1,442	1,363,579	1,492	23,406
RB&W Hospital	555	524,520	n/a	n/a
RBH Block 7	2121	2,027,000	n/a	n/a
Royal Children's Hospital	2,429	844,300	21,143	n/a
Herston Campus Water	507	1,236,000	n/a	186,200
Scientific Services Complex	2,623	2,408,000	n/a	13,680
Prince Charles	11,404	15,740,051	65,844	10,676
Toowoomba and Baillie Henderson	1,475	837,637	7,387	21,099
Townsville	1,901	1,787,006	2,121	136,396
Total	46,552	50,607,138	109,202	605,686

Notes

The CO₂ emission reduction equates to approx 10,000 motor vehicles off Queensland roads annually

The savings in water equates to approx 192 Olympic swimming pools

Source Guarantee savings for Energy Performance Contracts

Carbon emissions

The Department of Health is committed to Queensland Government’s strategies *Environmental Protection (Waste Management) Policy 2000* and *ClimateSmart 2050*, which aim to reduce the government’s carbon footprint. Six gases have been identified under the Kyoto Protocol as the main gases that need to be accounted for. These gases are carbon dioxide, hydrofluorocarbons, methane, nitrous oxides, perfluorocarbons and sulphur hexafluoride. As part of standard emission accounting practices these gases are reported as carbon dioxide equivalent emissions (CO₂ – e).

The Queensland Government is developing whole-of-government systems to standardise reporting on carbon emissions (measured in CO₂ equivalents). The basis for this reporting is consistent with national and international standards, including definitions outlined in the AS Standard ISO 14064 and the *Australian Government’s National Greenhouse Accounts Factors* workbook, as detailed below:

Scope 1

Emissions that occur from sources that are owned or controlled by the company (e.g. emissions from departmental controlled vehicles, diesel generators, gas boilers etc)

Scope 2

Emissions are classed as indirect emissions solely from the generation and consumption of purchased electricity or steam or heating/cooling). Scope 2 emissions are physically produced by the burning of fuels (coal, natural gas, etc.) at the power station or facilities not controlled by the organisation.

Scope 3

Emissions are the result of actions of a company, but occur from sources not owned or controlled by the company. Their inclusion should be based on their relevance to the operations of the organisation.

More broadly, Scope 3 emissions can include:

- employee business travel (in vehicles or aircraft not owned or owned by the reporting organisation)
- employees commuting to and from work
- extraction, production and transport of purchased fuels consumed
- extraction, production and transport of other purchased materials or goods

- generation of electricity that is consumed in a transport and delivery system (reported by end user)
- out-sourced activities
- transportation of products, materials and waste.

The Queensland Government aims to continue to improve data collection methods and reporting of carbon emissions in line with national and international standards. While the best available data has been used, in some instances estimates have been reported due to the limitation of data collection systems, for example in government-owned buildings where there are multiple tenants and the electricity usage cannot be attributed to a single agency, the Department of Public Works calculates the electricity usage by tenanted agencies based on the m² leased.

Queensland Health carbon emissions during 2007-08.

Scope	Category	Notes	Carbon emissions (tCO ₂)
Scope 1	Fuels used by Qfleet vehicles	1	17,170
	Fuels used by agency owned and/or specialised vehicles		
Scope 2	Purchased electricity for major workplaces	2	458,716
Scope 3	Domestic air travel on commercial airlines	3	10,991
	International travel on commercial airlines	4	545
Total			487,422

Notes

1. The 2007-08 vehicle CO₂ emissions figure represents the estimated cumulative emissions for the period 1 July 2007 to 30 June 2008. It takes into account progressive changes in the size and composition of the fleet during the 12 months, including vehicle replacement. The figure is derived for each fleet vehicle leased using:
 - a. the lease package details (time and kilometres)
 - b. CO₂ emissions data from testing in accordance with Australian Design Rules for emissions and fuel consumption labelling.

Data provided by QFleet reflect CO₂ emissions and not

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CO₂ equivalent, and these calculations also exclude any secondary or indirect emissions.

2. Electricity consumption for government owned premises and premises leased from the private sector

a Electricity – government owned premises:

these figures are based on actuals from current available records of electricity accounts received by DPW, applicable for the period 1 July 2007 to 30 June 2008.

All electricity consumption has been converted to carbon emissions using a combined Scope 2 and Scope 3 conversion factor of 1.04 kg CO₂-e/kWh as recommended in the Australian Government's National Greenhouse Accounts Factors workbook.

b Electricity – premises leased from the private sector:

these figures are based on actuals from current available records of electricity accounts received by DPW, applicable for the period 1 July 2007 to 30 June 2008 on full year leases. Where full year records were not available, data has been apportioned/extrapolated to provide an estimate of full year usage. Where leases are less than 12 months old the data relates to the actual period the lease was in place.

Based on historical data, tenant energy consumption equates to approximately 55 per cent of total building energy use. The remaining 45 per cent used to air condition the building and light the common areas of a building forms part of the carbon emissions for individual tenants. This 45 per cent has been added to known electricity consumption for private sector leased accommodation.

3 Air travel includes all recorded air travel booked under arrangements managed by the Queensland Government Chief Procurement Office (QGCPPO) for:

- a. international travel on all airlines
- b. domestic air travel on both the mainline 'trunk' carriers (Qantas and Virgin Blue)
- c. travel on smaller, regional carriers for the period 1 July 2007 to 30 June 2008.

QGCPPO calculates the number of passengers per sector for domestic (Qantas, Qantaslink, Jetstar and Virgin Blue) for the period 10 Dec 2007 to 30 June 2008. This information is then passed on to the respective airline for calculation of carbon emissions.

For regional and international air travel for 2007-08 and domestic air travel as defined above for the period 1 July 2007 to 9 December 2007 the following methodology is used:

From data provided by each airline, agency or travel management company QGCPPO calculates the kilometres flown. The kilometre figure is divided by 100 and multiplied by an industry average number of litres of fuel burnt per passenger per 100 kms. A factor of five has been used for regional, international and domestic travel.



Waste management

The *Queensland Health Waste Management Strategic Plan 2005-2010* identifies four key action areas for the management of waste in Queensland Health facilities. The strategic plan is supported by the *Queensland Health Waste Management System 2005-2010* which provides guidelines and strategies for attaining best practice waste management in an economic and ecologically sustainable manner.

Key Action 1: Legal and other requirements

Compliance with the requirements of the *Environmental Protection Act 1994* and relevant subordinate legislation continued to be achieved by all health service districts. This included the development and implementation of waste management plans for clinical and related waste. Under the plans, waste management processes and principles have been developed by individual facilities and reflect district plans.

Facilities conduct regular audits and assessments of waste management processes and practices for compliance and to identify avenues for quality improvement and best use of available resources.

Criteria 3.2.3 of the Australian Council of Healthcare Standards (ACHS) EQUIP 4, relates specifically to waste and environmental management practice. Districts continue to achieve the requirements of the standards across the state with the Royal Brisbane and Women's Hospital and Health Service District being awarded an outstanding achievement against this criterion.

Queensland Health has provided representation in the review of a number of Australian standards including:

- AS/NZS 4261:1994 – Reusable containers for the collection of sharp items used in human and animal medical applications
- AS/NZS 3816:1998 – Management of clinical and related wastes.

Key Action 2: Governance

- District waste management accountability plans have been developed to enhance reporting.
- Each district has established waste management committees.
- Group performance contracts combining district waste services contracts were introduced in southern and central area health services in 2007. This initiative has enabled the areas to negotiate lower prices for the disposal of waste which will result in significant cost savings to Queensland Health. The contracts provide for a high level of compliance in the areas of waste storage, transport and disposal.
- The Statewide Waste Management Coordination Committee continues to meet regularly. This group provides a conduit by which waste management issues across various areas of Queensland Health can be discussed and progressed.
- Waste management resources and tools to assist waste management planning and processes have been developed by the Queensland Health Waste Management Advisers located in each area. This includes the development of a generic Clinical and Related Waste Management Plan template and associated guideline to facilitate development of plans that are consistent across Queensland.
- Queensland Health Waste Management Advisers engage with and provide waste management related advice to stakeholders within and external to Queensland Health.

Key Action 3: Resource management

- Waste management advice is provided by Queensland Health Waste Management Advisers and environment health officers in population health units during the planning and consultation phases of new and redeveloped health care facilities.
- Consultative advice was provided by Queensland Health Waste Management Advisers on policies and plans such as the Water Efficiency Plan for the Royal Brisbane and Women's Hospital.
- Despite increases in occupied bed days and in surgical and oncology treatments, the overall quality of waste being generated has improved. This reflects improvements in recycling and waste segregation.

- Waste coordinators have been appointed at The Prince Charles Hospital and Rockhampton Base Hospital. These appointments will have a critical role in ensuring compliance and quality improvement through education and regular monitoring of waste management practices.

Key Action 4: Education

- Intensive waste education and training programs, highlighting changes in procedural requirements, were provided to all districts to support the implementation of the new waste service contracts.
- An online Waste Education and Assessment program has been developed and is available to all Queensland Health staff on the Queensland Health intranet site <http://qheps.health.qld.gov.au/safety/learning.htm> This program has been customised to include Queensland Health specific information. Completion of the competencies is automatically recorded in a competency register, providing useful information for future ACHS accreditation.
- Waste management resources and educational material are available to all Queensland Health staff through the Environmental Health Practitioners Online Manual <http://qheps.health.qld.gov.au/ehpom/>

Future directions

- Northern area continues to investigate alternative waste management/treatment systems with the aim of achieving improvements in efficiency and effectiveness.
- The Clinical and Related Waste Management Plans for each district will be revised to reflect new Queensland Health structural reforms.
- A Statewide Waste Workshop is planned for late in 2008. This will provide a forum in which to discuss strategic waste management principles, climate change impacts associated with waste management and matters for the review of the Queensland Health Waste Management Strategic Plan.
- The Statewide Waste Management Coordination Committee will play an active role in providing input to reviews of existing Queensland waste management policy and legislation.