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# Earth Smart Environmental Sustainability Strategic Plan 2008–2012



## Our environment

Queensland enjoys a wealth of natural riches, a relaxed lifestyle and a unique environment, with almost half our species found nowhere else in the world. In addition to building Queensland's strong economy, the Queensland Government is committed to fostering environmental sustainability. The challenges we face with our growing population and climate change have a significant impact on our environment and lifestyle.

Our future and wellbeing are dependent on our ability to meet the environmental challenges we face. The Queensland Government has accepted the challenge of improving our environmental sustainability with the establishment of significant targets to protect our lifestyle and our environment.

## Our Queensland Government priorities

The Queensland Government is taking action to reduce our state's carbon footprint through the significant targets set out in *Toward Q2: Tomorrow's Queensland*. Queensland's ClimateSmart strategy will also guide Queensland's direction towards a more ecologically sustainable society.

The *Department of Education, Training and the Arts (DETA) Strategic Plan 2008–2012* clearly outlines the department's goals for improved environmental sustainability. This DETA *Earth*

*Smart Environmental Sustainability Strategic Plan 2008–2012* supports the DETA Strategic Plan, and outlines how DETA will contribute to the whole-of-Government approach to protecting our lifestyle and environment.

This plan is informed by the United Nations resolution on the Decade of Education for Sustainable Development, and outlines how we will achieve this change across all the contexts in which the department operates.



## DETA's role

As both a major consumer of resources and a significant agent of social change, the Department of Education, Training and the Arts has a dual role to play in supporting environmental sustainability:

- As the largest government department in Queensland, we have a responsibility to reduce our ecological footprint through more efficient use of our resources.

- Through our education, training, arts and cultural endeavours, we can build the community's knowledge, skills and commitment that will be required to achieve environmental sustainability.

This strategic plan is focused on three areas:

1. our ecological footprint
2. educating for sustainability
3. our natural environment.



## Our vision

*Enough for all forever through caring for self, others and place*

# 1. Our ecological footprint

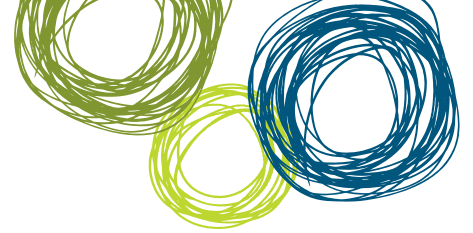
The department will implement measures to ensure our precious natural resources are respected and used efficiently throughout our business offices and service delivery. As a priority, steps will be taken to urgently and dramatically reduce our carbon emissions and our water consumption.

## Reducing carbon emissions

In line with the *Toward Q2: Tomorrow's Queensland* target of reducing Queenslanders' carbon footprint by a third by 2020, we will reduce our carbon footprint by five per cent by 2010 and 20 per cent by 2015.

This will include:

- implementing our *Strategic Energy Management Plan* – which establishes a framework to achieve environmentally sustainable infrastructure and operations across the department, including:
  - constructing and refurbishing building projects to the four and a half green star rating<sup>1</sup> standard
  - compliance with the *ClimateSmart 2050* mandate for air conditioning use within all government owned office buildings
- reducing the CO<sub>2</sub> emissions created by departmental vehicles by 14.6 per cent by 2010 through our *Vehicle Fleet Mix Implementation Strategy*
- incorporating sustainability principles into procurement of goods and services policies, including corporate and professional services
- continuing to implement Green Transfers for DETA staff to reduce carbon emissions through shorter commuting times
- implementing the *Solar and Energy Efficiency in Schools Program* in all Queensland state schools and centres by 2011, with the aim to reduce greenhouse gas emission and energy use by up to 30 per cent.



## Reducing waste

Waste will be minimised within all business services across DETA in line with the targets to be set by the Queensland Government early in 2009.

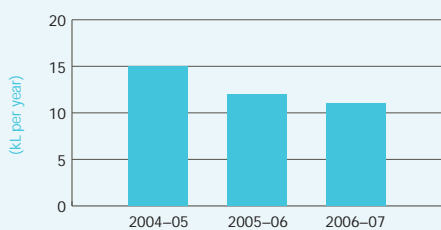
## Reducing water consumption

To ensure the sustainability of the state's water supply, now and into the future, the department will continue to take steps to reduce water consumption.

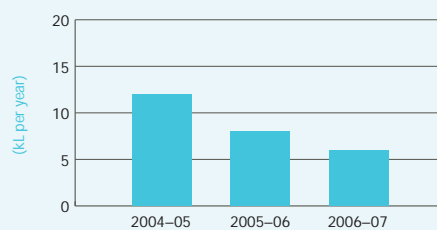
The Queensland Water Commission water restriction target will be achieved or exceeded in all DETA operations.

### How much water are we saving?

The department is continuing to introduce water-saving initiatives and encourage changes in behaviour to reduce water consumption. In 2007–2008, initiatives were implemented across state schools, TAFE institutes and departmental offices to minimise water consumption. Initiatives such as the School Water Efficiency Program (SWEP), established in January 2007, have assisted schools to reduce water use and to meet mandatory Queensland Water Commission requirements. The following figure illustrates the water consumption per student (kL per year) at TAFE institutes and state schools across Queensland.



Water consumption per student (kl per year) for students at TAFE institutes and state schools across Queensland



Water consumption per student (kl per year) for students at TAFE institutes and state schools in south east Queensland only

## River Cooled Cultural Centre

As part of the Millennium Arts Project, a river cooling system has been installed to service the air conditioning requirements of the Cultural Centre at South Bank. The system, which uses water taken from the Brisbane River, instead of mains water as used in conventional air conditioning cooling towers, has reduced the use of mains water by up to 110 megalitres in the first year.

## Sustainable schools

To maximise the ecological contribution that Queensland schools can make, DETA will support them to take action by:

- providing strong financial incentives for schools to reduce their ecological footprint through enabling them to retain a percentage of their savings
- implementing partnerships with industry, government agencies, local government and community organisations to achieve more efficient use of their resources
- implementing School Environmental Management Plans (SEMP) for schools throughout Queensland with an

aim to reduce their ecological footprint by

- reducing school waste to landfill by 50 per cent
- conserving water use in schools by 15 per cent
- improving energy efficiency in schools by up to 30 per cent through behaviour change, lighting retrofitting, solar power and other innovative solutions
- increasing biodiversity in the school grounds
- encouraging the uptake of travel smart solutions by teachers, students and parents to reduce carbon emissions.

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### *Queensland Environmentally Sustainable Schools Initiative (QESSI)*

The department is working toward all schools becoming environmentally sustainable. The 12 QESSI regional hubs around the state and their alliance partners are assisting schools through the integration of existing environmental education for sustainability programs with measurable environmental, economic, social and educational outcomes. To date, approximately half (780) of all schools in Queensland have participated.





## 2. Educating for sustainability

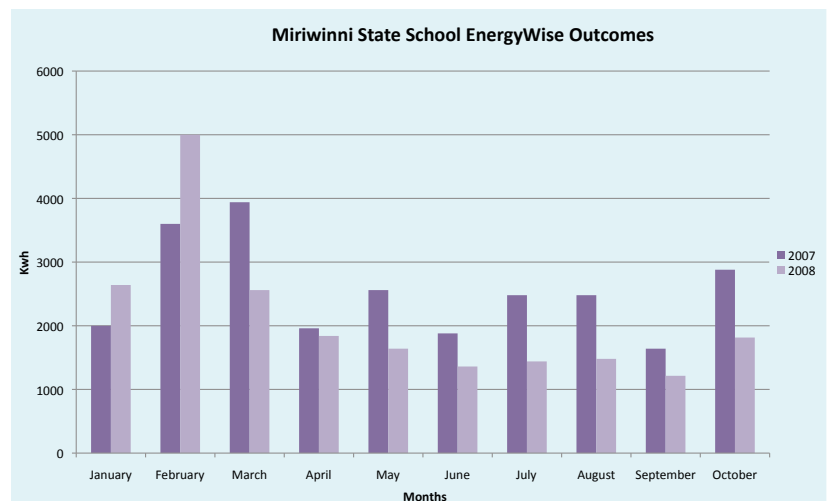
Education is central to achieving significant behaviour change. We need to foster the right skills, knowledge and interests to discover innovative solutions to the environmental challenges we face.

### Raising awareness

Through our education, training and cultural endeavours, we will work to inform and educate our communities of the need for environmentally sustainable action, and the important contribution every individual can make to a sustainable future.

This will include:

- providing high quality, consistent and practical environmental sustainability information and advice across the education, training and arts portfolios to support individuals to use sustainable practices in their work and personal lives
- expanding school–community partnerships across Queensland, building on the significant achievements made through the Queensland Environmentally Sustainable Schools Initiative
- using the unique relationships and partnerships between our schools and their communities and students to build a shared commitment to reducing the



Miriwinni State School students participated in the Energy Wise program during 2008 and achieved real energy savings. Students worked on real-world problems, such as climate change and sustainability, integrated with their Maths, Science and Studies of Society and Environment subjects.

By the end of October, the small school had reduced average energy consumption by 17.5 per cent, or 4460 kWh, the equivalent of greenhouse gas emissions from 4504.6 fridges.

The program has provided students with a range of green skills and knowledge, as well as providing cost savings for the school, and energy savings across the community, as students apply their skills and knowledge in their home life.

state's ecological footprint.

This will include

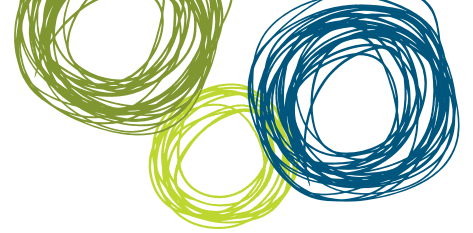
- Department of Mines and Energy – EnergyWise program
- Keep Australia Beautiful – Queensland Green and Healthy Schools program
- Great Barrier Reef Marine Park Authority – Reef Guardian Schools program



### Learning outside the classroom

Annually, over 95 000 students participate in programs at the 25 Outdoor and Environmental Education Centres in unique locations including forests, tropical reef-fringed islands, beaches, outback and rural Queensland, and estuarine and freshwater habitats. Programs are linked to the school curriculum, team building and leadership objectives.

- Queensland Transport – TravelSmart Schools program
- Natural Resources and Water – WaterWise Schools program
- Natural Resource Management Groups – Landcare and Waterwatch school programs.
- promoting innovative solutions in arts practice which minimise the impact on the environment
- increasing the level of community engagement in arts events, such as festivals, which promote the value of the natural environment and the need for sustainability
- requiring government-funded arts activities to minimise carbon emissions, seeking carbon neutral outcomes where possible.



## Green education and training

Through the education and training delivered by the department, we will develop citizens and communities that have the commitment, skills, knowledge and ingenuity to drive environmental sustainability and to find creative solutions to environmental problems.

This will include:

- incorporating the key knowledge, skills and capabilities to develop active and informed citizens for a sustainable world in Queensland state schooling curriculum
- exploring new ways of doing business to improve environmental sustainability, expanding on our existing initiatives such as the 25 Outdoor and Environmental Education Centres situated across Queensland
- integrating sustainability principles and practices in all new Queensland training qualifications from 2009
- encouraging the uptake of green skills within apprenticeships and traineeships over the next five years
- increasing the uptake of green skills over the next five years by up-skilling existing workers, as part of the *Queensland Skills Plan 2008*
- leading the development of the *National Vocational Education and Training Sustainability Policy and Action Plan* to guide the national VET system in its response to environmental sustainability, including the embedding of green skills in national training packages
- strengthening the emphasis on sustainability in vocational education and training (VET) programs as part of the *Queensland Skills Plan 2008*.

### 3. Our natural environment

We need to secure our unique biodiversity and enable Queenslanders to continue to enjoy their natural environment. Our TAFE institutes, schools and other facilities will provide an environment conducive to creating a 'sense of place', fostering careful use of our resources and instilling a lifelong regard for nature.

This will include:

- enhancing our natural environment, our unique native wildlife and fragile ecosystems as part of our planning processes throughout the department
- maintaining existing biodiversity of new and existing sites through conservation of natural habitats
- implementing the *Ecologically Sustainable Development Design Requirements* which will provide a benchmark for good practice across all DETA facilities
- fostering student engagement in their environment through the rehabilitation of habitats, planting and nurturing gardens and connection to their corridors and catchments.



#### Cooloola Sunshine Institute of TAFE

Sustainable design principles are being implemented in projects throughout TAFE Queensland institutes. For example, the design of the Noosa Arts and Environmental Tourism Centre Campus of Cooloola Sunshine Institute of TAFE has used ecologically sustainable design principles to maximise the retention of the natural environment. Optimal orientation and landscape design for climate moderation through cross ventilation reduces energy consumption. The institute uses rainwater harvesting and differentiation to facilitate full rainwater re-use.

Through these and other measures, TAFE institutes have reduced water consumption by 50 per cent between 2004–05 to 2007–08.



## Moving forward – our plan for action

The activities outlined in this document are just the beginning. To meet our challenges, we need to continue to re-evaluate our progress, and identify what we can do to continuously strive to improve environmental sustainability across the department.

An action plan will be developed, and reviewed annually. The action plan will build on the achievements and initiatives outlined in this strategic plan and will target new areas to support our government priorities.

[www.deta.qld.gov.au/strategic/plan/environment](http://www.deta.qld.gov.au/strategic/plan/environment)