

Objective:

To provide ongoing benefits to Queensland through–

- the effective management of the state's water resources
- partnerships with the community and stakeholders to improve the health of catchments

Water and Catchment Services

The Water and Catchment Services output incorporates service delivery, policy and program development, and supporting science in the areas of water and Commonwealth–State agreements on natural resource management issues.

The department works with other organisations that have water and catchment management roles to deliver on the government's agenda. These organisations include the Queensland Water Commission, infrastructure businesses, local, Commonwealth and other state government agencies, and industry.

During the reporting period, the department continued to progress the state's water reform agenda to ensure the sustainability, security and reliability of water supply throughout Queensland. It also reviewed and improved some business processes to enhance the delivery of water-related programs, policies and services.

Water planning

The department has responsibility for the delivery of Queensland's water planning framework under its commitments to the National Water Initiative. This includes the development and implementation of high-quality water resource plans (WRPs) and resource operations plans (ROPs) for 23 plan areas covering 1.6 million square kilometres of the state.

The development of WRPs and ROPs included extensive hydrological, ecological, economic and social assessments, widespread community consultation, and an analysis of public submissions.

During the reporting period the department continued to progress the development of WRPs for the Baffle, Barron, Cooper Creek, Fitzroy and Whitsunday catchments and ROPs for the Burdekin, Gold Coast, Gulf, Logan, Mitchell and Moreton catchments. It is anticipated that many of these plans will be released in the coming year.

The department also continued its collaboration with the Murray–Darling Basin Authority in relation to the development of the draft Murray–Darling Basin Plan.

DERM's water planning policy provides for the allocation and sustainable management of water to meet Queensland's current and future demands and respond to the impacts of climate change on the environment.

The department's management regime protects water resources and dependent ecosystems, as well as the interests and security of water entitlement holders. This management regime is fundamental to achieving outcomes in areas subject to water resource plans, as

well as to delivering accountability and water reform outcomes at the national level.

Water accounting information

The department monitored and managed Queensland's water resources using a network of 365 stream gauging stations and approximately 5000 groundwater observation bores. It published near-real-time water quantity information on the department's website and provided the Bureau of Meteorology (BOM) with data for flood warning purposes. These water quality and ecological monitoring programs will continue in 2009–10.

DERM worked with the national water accounting development committee to implement effective, consistent reporting of water resources nationally and within Queensland. In 2009–10 the department will work with BOM to further enhance the development of national water accounting standards and the development and publication of a pilot national water account.

Water meters

Metering provides DERM with the information necessary to manage the extraction of water from streams and aquifers. It also supports the government's water reform process.

During the reporting period, the Bowen project area was completed and consultation began with landholders in project areas for the 2009–10 financial year. The department undertook the project planning for the new project areas.

Wild rivers

Following an extensive consultation program with Cape York Peninsula stakeholders, the Government declared the Archer, Lockhart and Stewart basins as wild river areas on 3 April 2009. The declaration of rivers and their catchments as wild river areas helps to ensure current and future generations can continue to enjoy the natural values of these important environmental assets.

The Wenlock Basin wild river declaration proposal was released in December 2008 and the consultation period closed on 29 May 2009. The department is currently considering over 3900 submissions on this declaration proposal and will provide recommendations to the Minister on how to deal with matters raised in these submissions.

Declaration proposals are one stage of the wild rivers program, which aims to preserve Queensland's wild rivers by regulating future development within the rivers and their catchments. Wild river requirements seek to balance the preservation of these river systems with the needs of local communities.

To date, 20 Indigenous rangers have been employed to work with landholders, communities and traditional owners to protect and promote the state's declared wild river systems. The Wild River Rangers program will be expanded with additional funding of \$5 million over four years to employ an additional 10 rangers.

Legislation compliance

DERM continued to investigate alleged unlawful activities relating to its water and catchment services output. During the reporting period, a total of 285 water-related investigations and desktop evaluations were conducted with 18 compliance actions proceeding from these investigations.

Regional water supply strategies

The regional water supply strategies prepared by the department provide a regional framework for guiding the provision of adequate and secure water supplies. This framework takes into account water efficiency and demand management measures, and the potential impacts of climate change on water demand and availability.

These strategies are developed in cooperation with local governments, water service providers and industry and community groups and they seek to manage future water supply risks and ensure that water services are provided at the lowest social, economic and environmental cost.

The status of various regional water supply strategies is as follows at the end of the reporting period:

- The department continued to support the ongoing implementation of the 2006 Central Queensland Regional Water Supply Strategy, including the investigation of seven major water infrastructure projects
- The Far North Queensland Regional Water Supply Strategy is due to be finalised in 2009. This strategy provides short-, medium- and long-term strategies to secure water supplies for Cairns, the Atherton Tablelands and surrounding councils

- Draft regional water supply strategies are well advanced for the Mackay–Whitsunday and Wide Bay–Burnett regions. These draft strategies are expected to be released for public comment in the first half of 2010
- The draft North Queensland Regional Water Supply Strategy is expected to be released for public comment in late 2010
- Work has started on the North West Queensland Regional Water Supply Strategy.

Sustainable water management

Queensland is a party to the National Water Initiative (NWI), entered into by the Commonwealth and all states and territories. The NWI builds on the 1994 COAG framework for water reform.

The COAG Work Program on Water comprises 56 key actions to advance reform in the priority areas of: addressing over allocation and improving environmental outcomes; enhancing water markets; urban water reforms; and human resources, skills and knowledge.

The Water for the Future package supports improved urban water security projects nationally and also provides significant investment to improve water infrastructure (\$5.8 billion) and water buy-backs (\$3.1 billion) in the Murray–Darling Basin, thereby supporting the new institutional arrangements under the Agreement on Murray–Darling Basin Reform signed in July 2008.

Queensland will receive \$160 million from the package for its State Priority Project—Healthy Headwaters, while \$350 million is available for the Commonwealth purchase of water entitlements from willing sellers in the Queensland section of the basin.

A Water Management Partnership (Bilateral) Agreement was being negotiated with the Commonwealth for funding next financial year for Queensland's State Priority Project.

Queensland continued to actively participate in implementing the national reform agenda through its ongoing participation in the COAG arrangements and the Murray–Darling Basin reforms.

Water trading

The Queensland water planning framework provides for the conversion of existing water entitlements to tradeable water allocations, allowing water to be used and applied where the economic benefits are greater. Water allocations are an authority to take water and are registered on the Water Allocations Register. With title separate from land, water allocations can be held by anyone and traded as personal property.

There are currently more than 11 000 water allocations in Queensland with a total volume of approximately 1 700 000 megalitres (ML). During the reporting period 44 water allocations were transferred separately from land, involving over 4029 ML and a total consideration of about \$1.51 million. As well, one water-only lease with a total volume of 32 ML was registered, as were 66 other dealings including changes of location, subdivisions and amalgamations.

Approximately 1271 water allocations, with a total volume of over 121 083 ML and a value of over \$74 million have been permanently traded (separately from land) since 2003, when tradeable water allocations were first introduced in Queensland.

Water use efficiency

The *Water Supply (Safety and Reliability) Act 2008* introduced a number of demand management initiatives that seek to achieve water savings and promote more efficient use of water in regional communities outside south-east Queensland. A suite of guidelines is being developed to assist water service providers and their customers to implement the new requirements, including:

- outdoor water use conservation plans
- consistent residential water billing
- the provision of water use information to non-owner residents
- a water efficiency management plan.

Targeted consultation around draft guidelines was conducted with key stakeholders throughout regional Queensland in April and further input will be sought prior to finalisation of the guidelines by the end of 2009.

The department's regulatory initiatives are complemented by the Waterwise program, which provides targeted community information and education.

A two-day workshop in April 2009 provided a forum for water educators from 18 councils around the state to share their expertise, profile their local water education and community awareness programs and strategies, and learn more about the department's approach to demand management. It was also an opportunity for new waterwise information materials to be showcased and evaluated.

The use of potable water on gardens is highly discretionary and provides a major opportunity to reduce water use. The Waterwise Gardens program, which aims to encourage the establishment and maintenance of water-efficient gardens, continued to roll out during the reporting period, with the development and update of web-based information sheets.

The department's curriculum-based water education program *Water: Learn it for life!* also continued to roll out. The program encourages Queensland primary students to influence families and the broader community in valuing and conserving water. To date more than 900 teachers and 650 pre-service teachers have participated in professional development sessions to help them deliver the program in their schools.

Waterways health

The department continued to implement programs across its science and catchment policy areas to improve and maintain the health of Queensland's waterways, including the preparation of scientific tools and information to support actions in the Great Barrier Reef Water Quality Protection Plan (Reef Plan).

Through the department's QScape program, remote sensing science was used to provide better information for modelling the movement of water, sediment and nutrients in catchments. This work led to improved knowledge of how changes in climate and land use and management affect land condition, water quality and ecosystem health.

The Ground Cover Index (GCI) is a satellite image-based index that provides estimates of ground cover for cleared areas and open woodlands across Queensland. The GCI is determined annually and is available from 1988 to 2008. Producers use GCI information as a guide for sustainable land management practices to increase productivity and reduce the risk of long-term degradation. Scientists use the GCI for catchment erosion modelling and integrated waterway quality monitoring in reef catchments.

The Great Barrier Reef is under threat from a range of pressures, including run-off that drains into the reef lagoon.

Improved land management practices are being introduced to reduce nutrient and sediment loads and improve water quality. DERM continued to monitor catchment run-off to determine whether new land management practices are reducing nutrient and sediment generation.

Similarly, monitoring of Moreton Bay catchments is helping to validate the amount of nutrients and sediment estimated in run-off. DERM monitors south-east Queensland waterways on behalf of the SEQ Healthy Waterways Partnership (135 freshwater sites bi-annually and 254 estuarine and marine sites monthly) to support the publishing of the annual Report Card grades and ecosystem health modelling.

Evaluations of aquatic ecosystem health were also continued. The Stream and Estuary Assessment Program (SEAP) was implemented to report on the health of rivers and the health risks to these ecosystems in Queensland's nine freshwater biogeographic provinces (as part of the Water Act reporting requirements). The program was initiated to address Service Delivery Performance Commission report recommendations on water quality monitoring in the state. The SEAP report is expected to be completed in late-2009.

Recycled water

The recycled water provisions of the *Water Supply (Safety and Reliability) Act 2008* commenced on 1 July 2008. The primary aim of the provisions is to protect public health and, for certain schemes known as critical recycled water schemes, ensure continuity of operation to meet the essential water supply needs of the community or industry. Under the Act, recycled water providers must have either of the following before supplying recycled water (unless covered by a transitional period):

- a recycled water management plan (RWMP) approved by the regulator
- an exemption from submitting a RWMP granted by the regulator.

During the reporting period, the Office of the Water Supply Regulator has continued to work with recycled water providers to increase awareness and understanding of the regulatory requirements. This has involved working with a range of service providers

including large recycled water providers in south-east Queensland as well as smaller regional providers.

Two exemptions were granted in June 2009 for large greywater treatment plants. The exemptions relate to commercial laundries that recycle their water to reduce water use. The exemptions mean that while strict water quality standards must be met, these commercial laundries are not required to prepare RWMPs for approval by the regulator.

Dam safety

While the safety of dams is primarily the responsibility of the dam owner, DERM ensures regulatory frameworks are in place for the safety of the state's referable dams. Referable dams are those where failure could put lives at risk. Other consequences of dam failure include economic loss, damage to property and the environment, and loss of water supply. There are now 100 referable dams in Queensland with identified populations at risk if they were to fail.

The department uses satellite imagery to search for dams that may fall under this category, and these are inspected if necessary. In the reporting period, 714 dams were inspected as part of an ongoing program. Reports are produced for each dam inspected, and owners are advised whether they need to undertake a failure impact assessment. In the reporting period, nine failure impact assessments were accepted, with three dams judged as having populations at risk.

A total of 13 sets of dam safety conditions were reviewed during the period to ensure they remained relevant and enforceable. The DERM Service delivery statement included a target for 2008-09 of '100 per cent of safety conditions for referable dams issued within customer service standards'. The actual percentage achieved by the end of 2008-09 was 88 per cent, and it will be 100 per cent by the end of 2009.

The principal mechanism for assessing dam owner compliance with dam safety conditions is the five-yearly comprehensive inspection undertaken by an independent engineer. This is supported by DERM's ongoing auditing program. Three safety condition audits were completed for the reporting period to bring the total for 2008-09 to 13 which exceeded the KPI target of 10.

The department also continued to investigate the safety of spillways. Recent spillway adequacy information is either available, or adequacy notices have been issued, for 77 per cent of the current list of referable dams; notices for the rest will be issued by January 2010. Dam safety staff are reviewing results of these assessments as they become available.

In the reporting period, 12 notices to assess structural flood capacity were issued to major dam owners. Owners of all 100 referable dams will be issued notices by the end of 2009. Nine assessment reports with either partial or completed concept designs and cost estimates for spillway upgrades were received by the end of June.

In the final quarter of 2008–09, dam safety conditions requiring spillway adequacy assessment reports were issued for the following dams: Glenlyon, Paluma, Wivenhoe, Somerset, Perseverance, Clarendon, Atkinson, Bill Gunn, Cedar Pocket, Borumba, Quarry and Gold Creek.

Several dam upgrade projects continued over the period. These included the raising of the full supply level of the Hinze Dam and the upgrading of Crooks and Wyndham dams near Mt Garnet. Crooks and Wyndham dams should be completed by the end of 2009. The department also made progress on investigations into the adequacy of the spillway for Ibis Dam.

Requirements for water service providers

The *Water Supply (Safety and Reliability) Act 2008* includes provisions for registered water service providers to prepare a strategic asset management plan (SAMP). This ensures the continued provision of water supply and sewerage services operated by local governments, statutory bodies and private entities. There are currently 164 registered water service providers, and the Act provides for small water service providers (fewer than 1000 connections for a retail service) to apply for an exemption from preparing a SAMP.

SAMPs, which are an integral component of the overall regulatory regime of water service providers in Queensland, are reviewed and approved by the regulator. The SAMP is also backed by requirements for review, independent audits and annual reporting.

Under the Act, water service providers are required to prepare customer service standards, system leakage management plans and drought management plans. Some providers are achieving a higher profile with their

customers by promoting their achievements in their annual reports, including work on SAMPs and customer service standards.

The Act also introduced new provisions for regulating drinking water quality to protect public health, with an emphasis on the monitoring and reporting of drinking water quality. The regulator performs an oversight role to ensure service provider management of drinking water quality incidents protect public health.

The requirement to have an approved drinking water quality management plan will be progressively introduced from July 2011 to July 2013.

Statutory authorities

During the reporting period, DERM continued to provide oversight of the financial and governance requirements of a range of water entities across the state.

SunWater Limited (SunWater), the Mount Isa Water Board, the Gladstone Area Water Board and south-east Queensland's new bulk water entities (SEQWater, LinkWater, WaterSecure and the SEQ Water Grid Manager) operate under different legislation but are all required to act in a commercial manner.

The department worked with each entity during the year to facilitate their compliance with statutory obligations with respect to planning, project approvals, financial arrangements and board appointments.

DERM also provided oversight of the administration and governance of 52 category 2 water authorities and 15 river improvement trusts. The department assisted these entities in meeting their statutory obligations regarding annual reporting, budgeting, works, annual borrowings and directors' appointments.

In March 2008, the government commissioned an independent review of all statutory authorities. The review recommended that the 52 category 2 water authorities and 15 river improvement trusts be abolished with functions transferred to local government. The State Government supported the recommendations in principle. The department has begun scoping the issues related to implementing the recommendations and will work with the authorities and trusts to implement the review recommendations and establish locally appropriate transfer arrangements.

Great Artesian Basin sustainability

The Great Artesian Basin Sustainability Initiative (GABSI) is a jointly funded initiative of the Queensland and Australian governments, which is addressing pressure decline in the basin by capping uncontrolled bores and piping inefficient land-degrading drains.

Works worth approximately \$12 million were completed under the GABSI program in 2008–09. Twenty-two bores were rehabilitated and approximately 980 kilometres of bore drains were replaced with pipelines, saving an estimated 8600 megalitres per annum of flow from the basin.

GABSI—in conjunction with the state’s water planning activities in the basin—has been extremely successful in managing this valuable water resource. Under GABSI stages 1 and 2 (1999–2009), 240 bores were rehabilitated and approximately 8800 kilometres of bore drains were replaced with pipelines, saving an estimated 98 000 megalitres per annum of flow from the basin.

The Commonwealth Government’s draft framework for funding and implementation of GABSI stage 3 (2009–14) is currently under negotiation with Queensland.

Regional NRM programs

Caring for our Country—established by the federal government on 1 July 2008 to integrate delivery of the Commonwealth’s natural resource management programs—replaced the Natural Heritage Trust (NHT) and National Action Plan for Salinity and Water Quality (NAPSWQ) programs.

A transitional arrangement and financial agreement commenced in July 2008 to provide federal funding for Caring for our Country and a complementary Queensland regional natural resource management program in 2008–09. This ensured the new regional program would be undertaken while negotiations continued for Caring for our Country, which will run until June 2013. Negotiations are under way for new agreements to be completed by 31 December 2009.

Reef Plan

The department continued to work with stakeholders to finalise the updated Great Barrier Reef Water Quality Protection Plan (Reef Plan). It is expected that the Great Barrier Reef Ministerial Council will endorse the updated Reef Plan in July 2009.

The department also continued to play a key role in a number of actions within Reef Plan, in particular the development and implementation of the Reef Plan Monitoring and Evaluation Strategy. Significant progress has been made in the design of the integrated ‘paddock to reef’ monitoring, modelling and reporting program through a series of stakeholder workshops. The draft design will go to the Reef Intergovernmental Operational Committee in early August, with implementation proposed to start in September 2009.

A number of special initiative projects aligned to Reef Plan and the Commonwealth Government’s Reef Rescue Program have also been initiated to support the monitoring, evaluation and reporting arrangements. These include enhancements to the catchment loads monitoring program, modelling development activities, and new remote sensing projects to better support reporting on targets.

Integrated waterways monitoring

In response to recommendations from the Service Delivery and Performance Commission, an integrated, statewide waterway monitoring framework has been developed, enabling a more coordinated approach to waterways monitoring between government and Natural Resource Management groups across Queensland. It will primarily entail coordination and collaboration between existing (and proposed) programs, to ensure various statutory and non-statutory elements are drawn together to achieve comprehensive assessment.

The draft framework has been developed and is waiting for finalisation. A statewide web portal for providing public access to waterways quality information has also been developed and will be online in coming months, with further development to be explored.

Community grants programs

All 600 funded projects under the Lifestyle Waterwise Grants program were successfully completed by 30 June 2009. This \$10 million program encouraged Queensland not-for-profit organisations to reduce their dependence on town water supplies by retrofitting existing facilities with water-saving devices. Grants were for a maximum of \$30 000 each.

The Natural Resources Awareness Grants program provides funding to volunteer community natural resource management groups to encourage greater public awareness of their achievements in protecting, repairing and restoring the environment, and participating in local activities. In 2009, more than \$100 000 was allocated to 17 projects and two of these were completed during the reporting period.

MBI Capacity Building program

The department continued its involvement in the national Market Based Instruments Capacity Building program through the maintenance of the 'Designer Carrots' website <www.marketbasedinstruments.gov.au>, developed to host information on the use of market-based instruments (MBIs) on behalf of the federal, state and territory governments.

During the reporting period, the department sought and received three years funding to maintain and provide ongoing support for the website, and to produce and disseminate a number of ongoing communication products. This funding will allow DERM to retain its leadership in market-based instrument capacity building activities.