South East Queensland

Natural Resource Management Plan

2009–2031

Regional targets to support the sustainability framework of the South East Queensland Regional Plan 2009–2031

Queensland Government

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Working in partnership

The South East Queensland Regional Coordination Group incorporates: State Government and SEQ Traditional Owner Alliance, Growcom, SEQ Catchments Ltd, SEQ Healthy Waterways, Consortium for Integrated Resource Management, Queensland Conservation Council, SEQ Water, and Council of Mayors (SEQ).

With a mission to support and improve through partnership the regional natural resource management arrangements for South East Queensland

Queensland Government
South East Queensland Regional Coordination Group

Queensland Conservation

Council of Mayors South East Queensland

SEQ Catchments
Healthy Land – Healthy Water

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Healthy Waterways
Because we're all in the same boat

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SEQTOA

Foreword

Planning for the future growth and development of South East Queensland (SEQ) presents a unique set of challenges.

Balancing population growth and continued economic development with the need to preserve our diverse natural resource assets has seen the creation of a range of region-specific plans and strategies.

The *South East Queensland Natural Resource Management Plan 2009–2031* has been developed using a collaborative and inclusive planning approach where all affected stakeholders have been given a genuine opportunity to provide input and build on the lessons learned over the past decade.

Importantly, the plan acknowledges the processes put into place to support the Australian and State Government-sponsored National Heritage Trust II program, along with the National Action Plan for Salinity and Water Quality initiatives in the region. It also provides for better integration of statutory and non-statutory planning and, with its emphasis on stakeholder collaboration and coordination across agencies and the community, is a prime example of the benefits to be gained by such an approach.

What makes this plan unique is that it does not set out to establish new strategies, actions or programs.

The plan establishes a single negotiated set of targets designed to assist with implementing relevant regional outcomes, principles and policies. Most importantly it aligns with the South East Queensland Regional Plan and supports the sustainability framework outlined in that plan.

It also coordinates existing planning efforts from all levels of government, community and industry to ensure priority programs are implemented and appropriate monitoring, evaluation and reporting takes place.

We applaud the partnership approach taken by State Government agencies, SEQ Councils, community organisations, industry groups, the conservation sector and academia in finalising this plan.

Through negotiation and goodwill, those groups with an interest in environment and natural resource management in the region now have a common voice.

The State Government and Council of Mayors (SEQ) commend the plan to all residents of SEQ and encourage interest groups to align their investment and efforts towards achieving targets identified in the plan, to ensure the future sustainability of our region.

Councillor Campbell Newman
The Right Honourable, the Lord Mayor of Brisbane, and the Council of Mayors (SEQ) Chairman

The Honourable Stephen Robertson MP
Minister for Natural Resources, Mines and Energy and Minister for Trade

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SEQ Healthy Waterways Partnership
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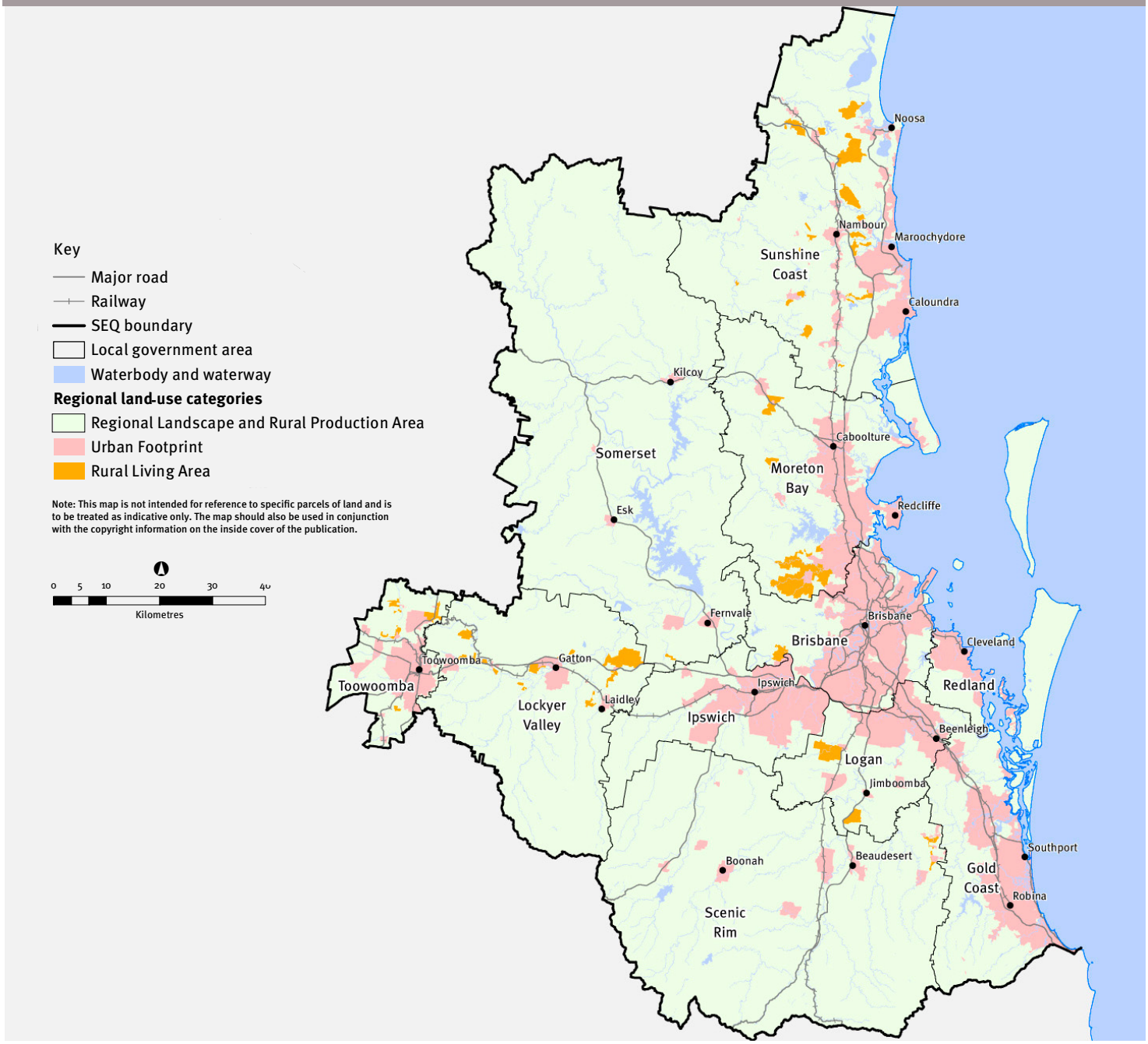
Figure 1: Map of SEQ region



The *South East Queensland Natural Resource Management Plan 2009–2031* (SEQ NRM Plan) is the pre-eminent, non-statutory environment and natural resource management plan for the region. It articulates measurable targets for the condition and extent of environment and natural resources aligned to desired regional outcomes (DRO) and policies in the *South East Queensland Regional Plan 2009–2031* (SEQ Regional Plan).

The SEQ region continues to experience the fastest urban growth rate in Australia. By 2031, the population is expected to reach around four million people—an increase of more than one million people over two decades.

To respond to the challenges accompanying rapid population growth, the SEQ Regional Plan includes a range of principles, policies and programs addressing natural resource management.

The region (refer figure 1) supports a rich diversity of natural resources. A key challenge to sustainable management of natural resources in the context of population growth and climate change, will be accommodating increasing demand for infrastructure, housing, essential services and consumables. The benefits provided by sustainable natural resource management—such as good quality water, air and soil, healthy waterways and wetlands, rainforests, woodlands and coastal environments—attract people to the region and play an important role in the region's liveability, economy and lifestyles.

The region has a long history of community, traditional owner, scientific and government involvement in research, policy making, planning and on-ground activities seeking to rehabilitate, conserve and manage the region's natural resources. The SEQ NRM Plan builds on this existing work by establishing an agreed set of regional targets that can be used to align existing and future plans, strategies and activities.

An impetus for change—SEQ State of the Region reporting

The SEQ NRM Plan has been prepared to provide important targets, baseline data and spatial information to complement and inform preparation and review of the South East Queensland State of the Region Report. The SEQ Regional Plan requires a SEQ State of the Region Report to be prepared on a regular basis to monitor and assess the region's progress towards sustainability. The objective of the SEQ State of the Region reporting program is to help guide and inspire actions for positive change throughout the region.

In the context of environment and natural resources, the State of the Region Report 2008 reported the following advice on the condition and extent of environment and natural resources:

- Our economy is growing, but our consumption patterns may threaten our natural ecosystems
- Climate change is an emerging issue for the region
- Air quality in SEQ is good and the quality of our waterways is stable or improving
- The area protected as national or marine park has increased, but some of our unique biodiversity is still threatened
- SEQ residents and visitors enjoy a diverse range of outdoor recreational activities in public and private open space. Although the total amount of public open space has increased, the amount per person has decreased due to the increasing population
- Much of our key agricultural land is held in small lot parcels, and may be used for non-farming purposes. The level of groundcover has improved, reducing the risk of soil loss. Our regional fisheries are productive and well managed
- Closing the gap on Indigenous equity is a priority in SEQ, as it is in the rest of the nation.

Several challenges were identified, including:

- We continue to use more than our share of global resources
- The region's biodiversity is threatened by the continued loss of natural habitat and critical regional ecosystems
- Our ability to enjoy an outdoor lifestyle is limited by the declining availability of open space per capita
- The gap between Indigenous and non-Indigenous health, education, employment and housing is still wide
- A severe drought has reduced groundwater levels and the supply of water in dams
- World-class efforts to save water have reduced our water use and allowed us to maintain a secure water supply for the region.

The SEQ State of the Region Report 2008 includes detailed information on the status of 76 sustainability indicators. Coordinated reporting and monitoring against both indicators and regional targets will allow for a closer assessment of the region's progress towards sustainability to address some of these challenges.

Implementing the plan—a new approach

The SEQ NRM Plan is not a traditional natural resource management plan. It does not include a traditional implementation strategy or contain an extensive list of actions. Rather, it is designed to guide existing and future plans, strategies and actions to *coordinate the management and use of natural resources to enhance community, economic and environmental values* (SEQ Regional Plan principle 4.1 under desired regional outcome 4 natural resources).

Some strategies will require revision (or become redundant) to ensure alignment with regional targets. Appendix 6 includes responses to frequently asked questions gathered during consultation activities to develop the SEQ NRM Plan.

Purpose

The four main purposes of the SEQ NRM Plan are:

- To complement and inform preparation and review of the SEQ State of the Region Report and the SEQ Regional Plan
- To inform the preparation of local government planning schemes and policies, state government policy, government and non-government corporate plans, property plans
- To inform the preparation of planning and investment associated with yearly and long-term business cycles at regional, sub-regional and property levels to ensure funding and community actions contribute to the achievement of regional targets
- To advise state agencies and local governments in the assessment of development applications and activities that may significantly constrain the achievement of regional natural resource targets.

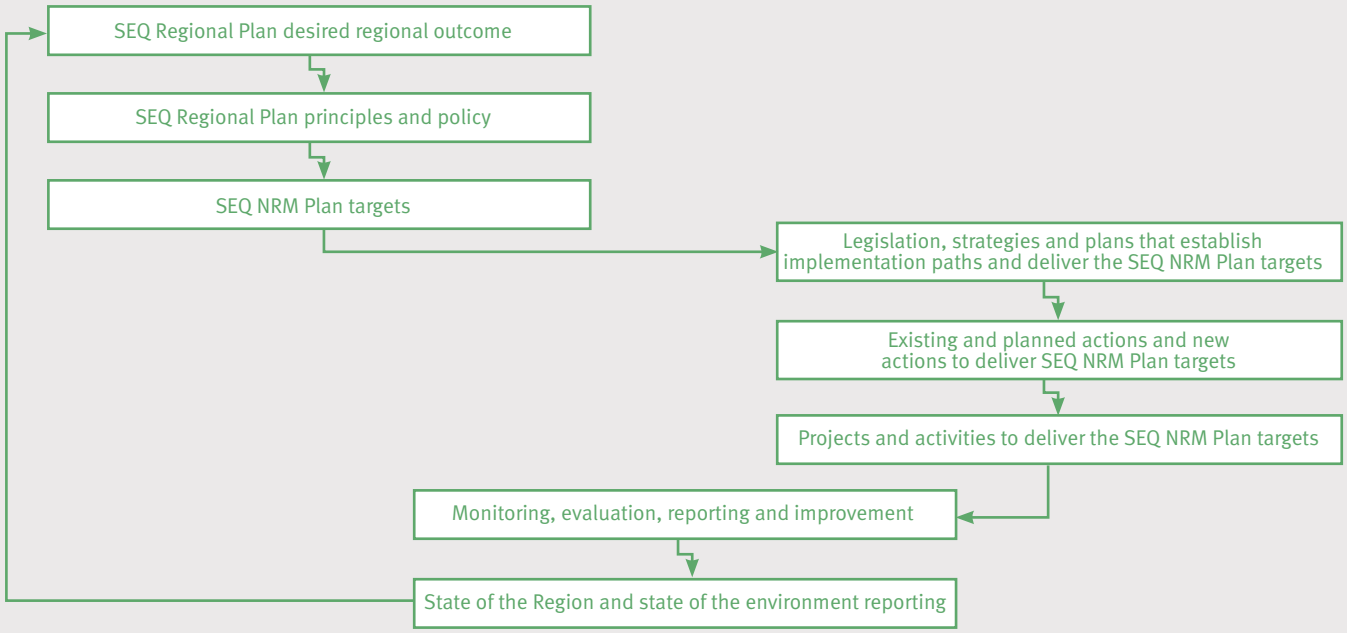
Measurable regional targets are established under the themes of air and atmosphere, coastal and marine, community engagement, land, nature conservation, regional landscape areas, traditional owner engagement and water.

Actions listed in existing natural resource management plans and strategies are not included in this document. A more extensive list of some of the other existing statutory and non-statutory natural resource and environment plans, strategies and actions applying to the region is in appendix 1. The coordinated monitoring, evaluation and improvement framework described in appendix 3, along with the complementary institutional arrangements described in appendix 4, will enable these actions to be coordinated and reported against regional targets.

In the past, it has been difficult to measure overall regional progress against targets because natural resource management has been addressed through numerous separate, although broadly related, plans. The SEQ NRM Plan seeks to address this issue by presenting a 'single point of truth' for natural resource management activities in the region.

While the targets, principles and core elements of this plan are critical in ensuring environment and natural resource management efforts in South East Queensland are coordinated in the most efficient and effective way, these matters of themselves will not result in the collaborative effort needed at all the scales required to ensure implementation. In order for this to occur, the program logic and major actions for the detailed implementation of the SEQ NRM Plan are outlined in appendix 5— implementing the plan.

Figure 2: A generic program logic for implementation



Program logic for implementation

Implementing the SEQ NRM Plan will occur through two major processes: statutory and non-statutory processes and activity. **Statutory** implementation is established and set out via provisions in a variety of legislative instruments. **Non-statutory** implementation of the SEQ NRM Plan will occur via program logic for each target in the plan to ensure all of the existing and future effort throughout the region is coordinated effectively. Implementation requires ensuring each target is assigned to an agency/entity/organisational unit to establish and oversee the program logic for each target.

Implementation actions

Current and past actions by previous and existing natural resource managers are acknowledged, as they form the basis of future management. Regional, sub-regional and local actions—such as creek bank restoration, bushland and weed management, water-quality testing, property planning, reduction of by-catch in fisheries and fire management planning—are all required to achieve regional targets.

Many natural resource management actions are funded or resourced by governments as part of their core business. Other actions will be resourced by private landholders, or through government and non-government incentives. It is expected the process to develop and strengthen effective sub-regional coordination arrangements will include identification and confirmation of local priorities, linkages to local government planning and investment, and the reporting and monitoring of sub-regional actions.

Specifically, the coordination and oversight of the implementation will occur at a regional level via the Chief Executive Officers Committee for Natural Resource Management in SEQ (CEOs Committee) with advice and support coordinated through the South East Queensland Regional Coordination Group (SEQRCG). The framework will address such issues as the identification of current management actions, identification of gaps in management activities, significant resources requiring protection, stakeholder involvement and associated investment and implementation strategies. Key implementation tasks include:

- Coordinating the practical monitoring, evaluation and reporting of management actions and outcomes
- The coordinated implementation of existing programs, strategies and plans related to environment and natural resources
- The determination of regional priority areas and the needs for planning, actions and incentives
- Enhancing the capacity and resources for community engagement
- Reviewing outcomes and the identification of needs for benchmark data and the opportunities to refine the approach
- The negotiation of roles and responsibilities, including project managers, policy makers and policy implementers
- The resolution, alignment and budgeting of existing resource contributions and constraints
- The identification of potential investment opportunities and avenues to ensure targets can be achieved where gaps in program investment/effort are identified.

Sub-regional level implementation tasks include:

- Identifying local priorities and negotiating roles, responsibilities and networks
- Coordinating efforts of natural resource managers across all levels of government, industry and the community
- Coordinating effective and efficient delivery of investment
- Ensuring networks built up over decades form the basis for enduring sub-regional arrangements (e.g. Landcare groups, regional bodies, SEQ Healthy Waterways, catchment management groups, and other implementation mechanisms).

Key implementation aspects of the SEQ NRM Plan 2009–2031

The SEQ NRM Plan will be implemented by a collaborative effort from all levels of government, the community and industry—all working to ensure changes on the ground that will result in the achievement of the 2031 targets.

The sub-regional scale arrangements to coordinate the implementation will be built upon existing groups and networks in nine different localities across the region: Sunshine Coast, Redlands and Southern Moreton Bay, Lockyer Valley and Somerset, Gold Coast, Brisbane Valley, West Brisbane and Ipswich, Southern Catchments and Scenic Rim, Redcliffe and Northern Moreton Bay, and Brisbane City.

In addition, the SEQ Natural Resource Management Atlas (SEQ NRM Atlas) and the SEQ NRM Monitoring, Evaluation, Reporting and Improvement Framework (SEQ MERI Framework) are vital components that assist the implementation of all five core elements of the SEQ NRM Plan.

The SEQ NRM Atlas comprises three parts. The first two are the SEQ Natural Resource Management Benchmark Atlas (SEQ NRM Benchmark Atlas), and the SEQ Natural Resource Targets Future State Atlas (SEQ NRM Future State Atlas). These two depend upon the third element of the atlas: the SEQ Natural Resource Management Geographical Information System (SEQ NRM GIS).

The SEQ NRM Benchmark Atlas sets out the best available and most appropriate datasets that describe the current condition and extent of the environment and natural resource asset. The SEQ NRM Future State Atlas sets out the best available interpretation of the environment and natural resource asset as described by the 2031 target. The SEQ NRM GIS provides the spatial data to inform the MERI framework.

Government and non-government organisations will use the SEQ NRM Atlas for the following purposes:

1. as a forward planning tool (e.g. to inform preparation of local government planning schemes and State Government policy, corporate plans, property plans and natural resource management program efforts)
2. as a decision-making tool for natural resource managers
3. for the monitoring and evaluation of resource conditions and trends
4. for identification of data compatibility and/or gaps.

Implementation of the five core elements of the SEQ NRM Plan requires considerable up-front thinking and understanding to ensure the effort is monitored, evaluated, reported and improved over time. A key implementation component will include the SEQ MERI Framework that, to deliver on the targets, seeks answers to these key questions:

1. Are there the data and information?
2. Are there the analytic tools?
3. Is there the scientific understanding?

The MERI framework will describe how people, information, technology and time interact so that progress toward the targets can be meaningfully assessed and improvements implemented.

Guiding principles

The SEQ NRM Plan is based on two guiding principles.

1. Recognition that all lands and other natural assets in the region form traditional Aboriginal landscapes and are maintained by various natural resource managers.

South East Queensland was a vastly different place before non-Aboriginal settlement commenced in 1824. Although shaped by human occupants for tens of thousands of years prior to 1824, the region's lands, waters, atmosphere and biodiversity were substantially unaffected by the impacts of development. Non-Aboriginal settlement has had significant impacts. Natural resource planning, management and action can be guided by holistic traditional knowledge and values—spiritual and respectful attitudes to the 'country' of the traditional owners are a key in the recovery of significant natural resource values.

The region also has a history of voluntary community action supported by industry and government investment. Private landholders manage the majority of the region. Enhancing and maintaining the capacity and ability of the community to engage in planning, implementing and monitoring local actions to support the achievement of regional targets is a priority.

2. The natural environment supplies a range of goods and services. These goods and services are known as 'ecosystem services' and the preservation and management of these are essential for the region's response to climate change, long-term economic, social, cultural and environmental sustainability, and community quality-of-life.

Natural resource planning and management is concerned with the processes of change largely brought about by development. It aims to ensure desirable outcomes are delivered for the mutual benefit of the whole community by balancing competing economic, cultural and environmental factors. In short, its overall purpose is to promote community wellbeing through:

- the management of the use and development of land and water
- protecting and managing ecosystem services.

Naturally occurring ecosystem services are key components of the sustainability and liveability of the region. Ecosystem services include: the filtering of runoff to supply high-quality water for human consumption; the provision of food and building materials; the provision of medicines and pharmaceuticals; the pollination of food plants; and recreational opportunities.

The SEQ Regional Plan includes a separate principle and policy section addressing the need for maintaining the capacity of the region's ecosystems to supply ecosystem services. (Principle 4.3)

"Traditional society was founded on respect for the environment. Traditional people recognised their dependence on the ecosystem. Group behaviour and resource use were directed by elders who were guided by traditional knowledge. Long-term observation of their country and its many species gave traditional people detailed knowledge of numerous inter-relationships. This added to their resource management decisions. Their dependence on, respect for and awe of their environment governed their lifestyles when the environment changed. They survived Ice Ages and sea-level fluctuations of hundreds of metres. When resources were weak those resources were protected by 'closures' imposed by the elders. Other control measures were provided by the transient and cyclical use of camping places and by restrictions imposed by totem relationships. Eco-system services performed one function that might not now be appreciated—the traditional people related directly to the 'country', in its holistic complexity, and the people adapted when it changed." (2008 SEQTOA)

Core elements of the plan

The key regional challenges are to jointly establish and support:

1. a common set of regional targets to 2031 aligned to the SEQ Regional Plan
2. a coordinated planning system
3. coordinated reporting
4. coordinated monitoring, evaluation and improvement
5. coordinated arrangements for implementation.

1. Common set of regional targets to 2031

Non-statutory targets for environment and natural resource management issues have been formulated under the following categories:

- air and atmosphere
- coastal and marine
- community
- land
- nature conservation
- regional landscape areas
- traditional owners
- water.

A wide range of landowners, traditional owners, scientists, planners, local government officers and community members have been involved in negotiating and developing the SEQ NRM Plan regional targets to 2031. These targets were developed based on research, broad consultation, and data availability (including benchmarks) to assist monitoring to 2031.

Establishing an overarching set of regional targets to 2031 aligned to desired regional outcomes in the SEQ Regional Plan allows individuals and organisations involved in delivering natural resource management outcomes to work toward the same targets.

The aim is for these targets to be translatable over time and scale at regional, sub-regional, local government and property levels. Targets are supported by actions contained in a wide range of existing plans and strategies for the region (outlined in appendix 1). In addition, a number of key actions have been identified in the SEQ NRM Plan to support the measurement and achievement of regional targets.

Based on the principles of adaptive management, review and refinement of these targets will occur every five years consistent with the review period of the SEQ Regional Plan.

2. Coordinated planning system

The SEQ Regional Plan provides a statutory framework that aims for sustainable management of growth and change in the region. It outlines a series of desired regional outcomes for natural resources, rural production and the natural environment, which are supported by a set of principles, policies and programs.

The SEQ Regional Plan specifies the need to develop a coordinated planning approach. It identifies (on p. 68) that *natural resource management should be undertaken in a coordinated, collaborative and integrated manner with effective partnerships between government and non-government organisations, land owners and traditional owners.*

As indicated in appendix 1, a large number of statutory and non-statutory plans, regulations, strategies and programs currently exist to manage the region's natural resources. These were developed for a range of purposes and their execution has, at times, caused confusion about responsibilities and timeframes. Negotiating collaborative solutions with the agencies and entities responsible for the instruments will be a critical process in achieving the targets.

3. Coordinated reporting

Coordinated reporting on activities that deliver desired natural resource management outcomes is essential to assessing how natural resource condition changes over time. It will improve consistency of annual reporting and efficiency in administration, and is linked to current reporting processes (such as State of the Region reporting). Although the current period for the State of the Region Report is every five years, the preferred timeframe for reporting against targets is every two to three years to closer monitor changes in the condition and extent of natural resources.

A pilot project to develop a coordinated reporting system to test and fine-tune the approach is currently under way. This is further outlined in appendix 2.

4. Coordinated monitoring, evaluation and improvement

Developing a coordinated monitoring, evaluation, reporting and improvement (MERI) system will allow for integrated feedback on the effectiveness of program and on-ground activities. Data gathered on the condition of the region's natural resources will be iteratively assessed so that trends can be established. The system will ensure information can be aligned with the SEQ Regional Plan's State of the Region reporting framework.

A coordinated MERI system will also help to ensure that the investment of money, energy and time is delivering outcomes without duplication and wasted effort. As evaluation proceeds, adjustments and improvements can be made as required. Refer to appendix 3 for further information.

5. Coordinated institutional arrangements

The region has a significant history of stakeholder and community involvement in planning and delivering natural resource management. Major stakeholders involved in planning and delivering on-ground outcomes include: individual property managers; community groups; industry groups; natural resource management regional bodies; Indigenous groups; non-government organisations; tertiary institutions; and state and local government.

The existing and emerging institutional arrangements to improve coordinated implementation of the SEQ NRM Plan include:

- the Regional Coordination Committee, which oversees implementation of the SEQ Regional Plan
- the Chief Executive Officers Committee for Natural Resource Management in SEQ, which is responsible for: policy and program coordination for the integrated implementation of desired regional outcomes, principles and policies related to natural resource management and waterways of the SEQ Regional Plan; and to advise the Regional Coordination Committee
- South East Queensland Regional Coordination Group, which provides support to the CEOs Committee for Natural Resource Management in SEQ, and helps coordinate natural resource management program implementation, monitoring, evaluation and reporting
- the maintenance and establishment of Science Expert Panels for water, landscapes, biodiversity and climate change
- sub-regional arrangements to coordinate implementation of NRM activities.

Appendix 4 provides a diagram of institutional arrangements, taken from the Chief Executive Officers Committee for Natural Resource Management in SEQ terms of reference.

Regional targets to 2031

To remove any doubt, the regional targets listed in the SEQ NRM Plan are non-statutory. To progress toward the targets, interim actions will be required to ensure regional natural resource and rural production areas are protected, enhanced and used sustainably (SEQ Regional Plan DRO 4). Many of these actions are already listed in existing natural resource management plans and strategies, and these are not included in this document. However, the coordinated reporting, monitoring, evaluation and improvement framework described in appendixes 2 and 3, and the complementary institutional arrangements described in appendix 4, will enable these actions to be coordinated and reported on to measure changes over time.

Summary of regional targets to 2031

Air and atmosphere

Atmosphere, air and climate are natural resources that play a key role in the health of the natural system. Factors such as continued population growth, the number of households and an increasing reliance on motor vehicles pose a threat to future air quality. Maintaining and enhancing the region's air quality is a key element when considering future land-use options and transport modifications.

A 1 – Greenhouse gas emissions
By 2031, the region will make an equitable contribution to the national and regional targets for reduction in greenhouse gas emissions.

A 2 – Air quality
By 2031, the levels of air pollutants in the SEQ air shed will be at or below the quality objectives in the appropriate Schedule of the Environmental Protection (Air) Policy 2008.

A 3, A 4 and A 5 – Thermal, noise and light pollution
By 2031, SEQ thermal pollution will be at or below 2003 levels.
By 2031, SEQ noise pollution will be at or below 1998 levels.
By 2031, SEQ light pollution will be at or below 1998 levels.

Coastal and marine

People of the region are privileged to live near one of the most beautiful coastlines in the world. The natural resources of coastal areas and marine waters are vital to our way of life and are the basis for a valuable international and domestic tourism industry along with commercial and recreational fishing.

CM 1 – Seagrass and mangroves
By 2031, the extent and condition of seagrass and mangrove ecosystems (including salt marsh) in bays and estuaries will be greater than or equal to that in 1988 and 2001 respectively.

CM 2 – Coral
By 2031, the condition and spatial distribution of soft and hard corals will be maintained at least at 2005 levels.

CM 3 – Beaches
By 2031, the condition of open coastlines (headlands, beaches and dunes) will be at or better than in 2006.

CM 4 – Fish stocks
By 2031, wild fishery stock condition will be sustained at sufficiently high levels to support commercial, recreational and Indigenous cultural fisheries, based on the 1995–2005 benchmark (ten-year rolling average).

CM 5 – Key species
By 2031, the extent and condition of the habitat of bottlenose and Indo-Pacific humpback dolphins, dugongs, sharks, turtles and wader birds will be equal to or greater than that in 2001 for each species.

CM 6 – Coastal algal blooms
By 2031, the extent and frequency of coastal algal blooms (CAB) will be reduced from the 2002–05 benchmark (five-year rolling average).

CM 7 – Coastal wetlands
By 2031, the condition and extent of SEQ coastal wetlands, particularly those connecting fresh and estuarine/marine habitat (including fish passage), will be equal to or greater than that in 2007.

Community

Recognition of previous and existing natural resource managers is one of the guiding principles of the SEQ NRM Plan. The region has a history of voluntary community action supported by industry and government investment. Private landholders manage the majority of the region. A priority is to enhance and maintain the capacity and ability of the community to engage in planning, implementation and monitoring of local actions to achieve regional targets.

C 1 – Community
By 2031, natural resource managers, government and non-government organisations will be resourced and working together to implement the SEQ NRM Plan.

Land

The condition, area and extent of arable and grazing lands are important for the supply of food, fibre and other materials to support the society and economy of the region. The maintenance of healthy soils is important for well-functioning ecosystems, the production of food, and the fibre and sustainability of communities. Land resources support the habitats for plants and animals. Vegetation and grass-cover filters impurities, such as excess nutrients and sediments, from runoff water to reduce pollution and improve water quality.

L 1 – Salinity
By 2031, the area of secondary salinisation in SEQ will be 10% less than in 2008.

L 2 – Agricultural land
By 2031, >90% (>266 667 ha) of SEQ agricultural land at 2004 will be available for sustainable agriculture.

L 3 – Soil acidity
By 2031, the area of acidified agricultural soils within SEQ will be reduced by 50% from the 2008 baseline.

L 4 – Soil organic matter
By 2031, the level of soil organic matter (carbon in t/ha) in agricultural soils will be higher than in 2008 or baseline year.

L 5 – Acid sulfate soils (ASS)
By 2031, the area of 'severe' acidification caused by the disturbance of ASS will be lower than in 2008.

L 6 – Soil erosion
By 2031, the extent of erosion from hill slopes and gullies will be reduced by 50% from the 2008 baseline.

L 7 – Grazing land condition
By 2031, 75% of grazing land in SEQ will be in a 'good' condition.

L 8 – Land contamination
By 2031, existing contamination sites and off-site impacts will be reduced; and no new sites will be created over the 2008 baseline data.

L 9 – Extractive resources
By 2031, extractive resources within "key resource areas" in SEQ will be available for their highest use with no net loss of other environmental and landscape values.

Summary of regional targets to 2031

Nature conservation

The region has one of the richest diversities of animal and plant species in Australia. About 4000 plant species and 800 freshwater and terrestrial vertebrate species are native and distributed across a wide range of vegetation types and environments. The provision of all ecosystem services relies on supporting these habitats.

NC 1 – Remnant and woody vegetation
By 2031, the 2001 extent of regional vegetation cover—including both remnant vegetation (35%) and additional non-remnant woody vegetation (22%)—will be maintained or increased.

NC 2 – Vegetation fragmentation and connectivity
By 2031, there will be no net fragmentation of larger tracts (greater than 5000 ha), and 20% of priority smaller tracts (less than 5000 ha) will be better connected than the 2003 baseline.

NC 3 – Wetlands
By 2031, the 2008 extent and condition of SEQ wetlands will be maintained or increased.

NC 4 – Vulnerable ecosystems
By 2031, at least 4% of the original pre-clearing extents of vulnerable regional ecosystems will be represented in protective measures.

NC 5 – Native species
In 2031, the 2008 conservation status of native species will be maintained or improved.

NC 6 – Habitat for priority species
By 2031, the 2001 extent and condition of habitat for priority taxa will be maintained or increased.

Regional landscape areas

The quality of life enjoyed by people in the region is supported by access to, and connection with, the unique landscapes of the region. These regional landscapes help to define the region's character and people's sense of belonging.

RLA 1 – Landscape heritage
By 2031, at least 90% of the 2011 area of regionally important landscape heritage will be retained within each local government area.

RLA 2 – Outdoor recreation settings
By 2031, the 2011 extent of regional outdoor recreation settings will be maintained or increased.

RLA 3 – Outdoor recreation demand
By 2031, 90% of the demand for outdoor recreation will be met through a mix of public land, waterways and the voluntary provision of opportunities on private land.

RLA 4 – Regionally high-scenic amenity
By 2031, the area of regionally high-scenic amenity will be maintained or improved from the 2004 baseline.

RLA 5 – Locally important scenic amenity
By 2031, at least 80% of the 2004 area of locally important scenic amenity within each local government area will be retained.

Traditional owners

Recognition of traditional owners as natural resource managers is one of the guiding principles of the SEQ NRM Plan. Traditional owner knowledge and values maintained the region for millennia. A key activity will be to achieve active involvement of Aboriginal and Torres Strait Islander peoples in community planning and decision making.

TO 1 – Traditional owners
By 2031, traditional owners and Aboriginal people will be resourced and working together with natural resource managers and government and non-government organisations to implement the SEQ Natural Resource Management Plan and the South East Queensland Aboriginal Traditional Owner Cultural Resource Management Plan.

Water

Water resources and riparian areas provide ecosystem services and clean water for human consumption, environmental flows, and recreation, agricultural and industrial use. These resources supply habitat for many important plants and animals. Water-based ecosystems, particularly wetlands and their components, filter impurities such as excess nutrients and sediments. The filtering of water aids in controlling pollution and improving water quality.

W 1 – Environmental flows
By 2031, environmental flows will meet aquatic ecosystem health and ecological process requirements.

W 2 – Groundwater levels
By 2031, 75% of SEQ Groundwater Resource Units will have groundwater levels within identified acceptable annual ranges.

W 3 – Groundwater quality
By 2031, groundwater quality (nutrients and EC measurements) in all SEQ Groundwater Resource Units will be within identified acceptable annual ranges.

W 4 – Groundwater dependent ecosystems
By 2031, the condition of groundwater ecosystems and groundwater dependent ecosystems will be within identified acceptable annual ranges.

W 5 – High Ecological Value waterways
In 2031, High Ecological Value waterways in SEQ will maintain their 2008 classification.

W 6 – Waterways maintenance and enhancement
In 2031, scheduled water-quality objectives for all SEQ waterways will be achieved or exceeded.

W 7 – Waterway restoration
By 2031, waterways classified as ranging from slightly to moderately disturbed and/or highly disturbed will have ecosystem health and ecological processes restored.

Air and atmosphere

Atmosphere, air and climate are natural resources that play a key role in the health of the natural system. Factors such as continued population growth, the number of households and the increasing reliance on motor vehicles pose a threat to future air quality. Maintaining and enhancing the region's air quality is a key element when considering future land-use options and transport modifications.

Queensland's climate is subject to the influence of the greenhouse effect and associated global warming, with discernible changes now being detected in temperature and rainfall monitoring records. Elevated levels of greenhouse gases in the atmosphere also mean the climate is likely to continue to change throughout this century.

The Commonwealth Government is introducing several major initiatives to drive emissions reduction in Australia. Examples of this include the Carbon Pollution Reduction Scheme, which will put a price on carbon emissions to encourage their reduction, and amendments to the Renewable Energy Target such that 20% of all electricity used in Australia will be from renewable resources by the year 2020. Other levels of government—as well as business, industry and the community—have an important role to play in the development of initiatives that complement these key emissions reduction strategies.

Improving business and community knowledge and understanding about air quality, climate change and greenhouse gas emissions will guide decision making towards the most effective and cost-efficient means to adapt to the potential impacts of climate change.

SEQ Regional Plan desired regional outcomes (DRO) and principles

DRO 1 – Sustainability and climate change

The region grows and changes in a sustainable manner—generating prosperity, maintaining and enhancing quality of life, minimising the use of resources, providing high levels of environmental protection, reducing greenhouse gas emissions and becoming resilient to natural hazards, including the projected effects of climate change and oil supply vulnerability.

Principle 1.3 Reducing greenhouse gas emissions

Reduce greenhouse gas emissions from development, land management and other planning decisions in the region.

DRO 2 – Natural environment

A healthy and resilient natural environment is protected, maintained and restored to sustainably support the region's rich biodiversity and ecosystem services including clean air and water, outdoor lifestyles and other community needs that critically underpin economic and social development.

Principle 2.3 Air and noise

Protect and manage the air and acoustic environments to maintain the health and wellbeing of the community and the natural environment.

The following regional targets seek to achieve DRO 1, DRO 2 and associated principles of the SEQ Regional Plan.

A 1 – Greenhouse gas emissions

By 2031, the region will make an equitable contribution to the national and regional targets for reduction in greenhouse gas emissions.

The greenhouse effect is a natural process important for creating the climatic conditions that humans, plants and animals need to survive. The greenhouse effect is caused by increases in the atmospheric concentration of gases such as carbon dioxide, methane and nitrous oxide. Evidence shows human activities such as the use of fossil fuels, broad-scale tree clearing and land-use changes are accelerating increases in the concentration of these gases. This is known as the enhanced greenhouse effect, and is responsible for the rise in global temperatures recorded through the twentieth century.

A 2 – Air quality

By 2031, levels of air pollutants in the SEQ air shed will be at or below the quality objectives in the appropriate Schedule of the Environmental Protection (Air) Policy 2008.

SEQ has significantly different air-quality issues than other areas of the state due to rapid growth and increasing population density. SEQ's key air pollutants have been identified as:

- ozone (O_3)
- nitrogen dioxide (NO_2)
- particles of different sizes (particles)
- sulphur dioxide (SO_2)
- carbon monoxide (CO)
- anthropogenic volatile organic compounds.

These pollutants have been identified as capable of causing serious health effects. Photochemical smog and poor visibility may also result from such regional pollution. Both government and industry use prescribed burning as an effective tool to reduce fuel loads and mitigate bushfire risk. This practice can be responsible for local deterioration of air quality. The practice is managed within parameters (weather conditions, particularly temperature and wind speed and direction) to reduce the impact on the environment and community health as far as possible. Management practices for prescribed burning, as well as transport and other land-use practices are described in the SEQ Regional Air Quality Strategy.

To deliver the regional vision for clean air, levels of air pollutants in the SEQ air shed should be at or below the quality objectives in Schedule 2 of the Environmental Protection (Air) Policy 2008.

A 3 – Thermal pollution

By 2031, SEQ thermal pollution will be at or below 2003 levels.

A 4 – Noise pollution

By 2031, SEQ noise pollution will be at or below 1998 levels.

A 5 – Light pollution

By 2031, SEQ light pollution will be at or below 1998 levels.

Thermal, noise and light pollution are measured as point source impacts that can have cumulative harmful effects on health and amenity. Population growth and related activities (such as building, infrastructure provision and increased levels of industry) can increase thermal and noise pollution. Effective urban design and planning can mitigate these. The new Environmental Protection Policy for noise assists the management and monitoring of noise pollution.

The effective functioning of ecosystems can also be disrupted when flora and fauna are disturbed by artificial light or noise or affected by thermal pollution. This has potential impacts on the biodiversity of the region.

Traditional owner perspectives

"Traditionally the air we breathed was polluted only by the smoke of our fires, the smells of our cooking and the dust kicked up by our dancing feet. Excessive pollution, emissions and accelerated climate change are a newer issue, created by a newer technology and a different form of social organisation. We look forward to a time when the traditional values of respect and care for our environment outweigh the drive for wealth and consumption. We believe it is only when that happens that we will see a sustainable future." (2008 SEQTOA)

Coastal and marine

People of the region are privileged to live near one of the most beautiful coastlines in the world. The coast and marine waters are vital to the local way of life and are the basis for a valuable international and domestic tourism industry and both the commercial and recreational fishing industries.

Coastal areas are not only attractive sites for recreation and coastal economies, but also contribute to community wellbeing and social cohesion. Beaches provide unique ecological services, such as filtration of large volumes of water and re-cycling nutrients. They also support near-shore coastal fisheries, and supply critical habitats (nesting and foraging sites) for endangered species such as turtles and shore birds.

In-shore coastal waters and reefs afford habitat for marine life that supply seafood and raw materials for industry and pharmaceutical products.

The South Pacific Ocean, along with the wetlands, rainforests and islands of Moreton Bay, offer a buffer against the potential effects of climate change through the regulation of climatic processes and local weather patterns. Sand dunes, islands, coastal wetlands, coral reefs and coastal vegetation are barriers against the effects of wind, water and waves during extreme weather events (such as cyclones and storm surges) that impact on life, property and infrastructure.

The Intergovernmental Panel on Climate Change (IPCC) has projected that the Queensland coastline can expect a sea level rise of up to 79 centimetres by the year 2100. This is comprised of 18–59 centimetres from thermal expansion and an additional 10–20 centimetres from melting ice sheets. In addition to the projected sea level rise figures, there will be an increased threat posed by storm surges. For example, the IPCC has predicted that one-in-a-hundred-year storm tide events are likely to result in additional inundation in the order of 0.45 metres along the Sunshine Coast, mostly due to sea level rise.

The projected rise in sea level due to climate change will impact upon low-lying coastal areas. Careful planning will be required to ensure that infrastructure, natural systems and property is managed to minimise impacts.

Furthermore, increases in temperatures and acidity levels will place greater pressures on coral systems.

SEQ Regional Plan desired regional outcomes and principles

DRO 2 – Natural environment

A healthy and resilient natural environment is protected, maintained and restored to sustainably support the region's rich biodiversity and ecosystem services including clean air and water, outdoor lifestyles and other community needs that critically underpin economic and social development.

Principle 2.4 Managing the coast

Maintain, protect and enhance the values of the region's coast, including the foreshore, coastal wetlands, dunes, coastal processes, marine ecosystems, significant coastal values and marine waters.

DRO 4 – Natural resources

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

Principle 4.2 Land, extractive resources, minerals, forestry and fisheries

Manage the region's natural economic resources to sustainably and efficiently meet the needs of existing and future communities.

The following regional targets seek to achieve DRO 2, DRO 4 and associated principles of the SEQ Regional Plan.

CM 1 – Seagrass and mangroves

By 2031, the extent and condition of seagrass and mangrove ecosystems (including salt marsh) in bays and estuaries will be greater than or equal to those in 1988 and 2001 respectively.

Large areas of seagrass loss and reduction in cover have occurred in Moreton Bay in the last couple of decades due to increased water turbidity. Seagrass is an indicator of the health of Moreton Bay. Its extent, density and type have been monitored since 1988 and provide a measurable indicator of the health of the bay and waterways.

Mangrove forests provide important habitat and nursery areas, particularly for juvenile fish, crabs and prawns. A reduction in the extent or condition of mangroves may indicate a loss in the functionality of our coastal and marine areas.

CM 2 – Coral

By 2031, the condition and spatial distribution of soft and hard corals will be maintained at least at 2005 levels.

Over time, in SEQ, submerged rocky outcrops have been colonised by hard and soft corals and other invertebrates, making rich reefs and habitat for a wide variety of marine life.

CM 3 – Beaches

By 2031, the condition of open coastlines (headlands, beaches and dunes) will be at or better than in 2006.

Headlands, beaches and dunes provide barriers and vegetation to buffer the effects of extreme weather events (such as cyclones and storm surges) on life, property and infrastructure.

Rapid population growth in coastal areas is placing escalating pressures on open coastlines. Sustainable planning and management of these coastlines is required to ensure their intrinsic values are retained for future generations.

CM 4 – Fish stocks

By 2031, wild fishery stock condition will be sustained at sufficiently high levels to support commercial, recreational and Indigenous cultural fisheries, based on the 1995–2005 benchmark (ten-year rolling average).

The diversity, condition and quantity of fish, crab, prawn and other wild fisheries provide an indication of the productivity and health of our coastal waters. This is important for the ongoing sustainability of commercial and recreational fishing industries. It must be noted that the quantities of marine fauna present are not always an indicator of the impact of 'fishing activities generally'. It is also an indicator of water quality, habitat extent and health, and weather fluctuations (all of which are largely influenced by land-based activities such as development, and pollution from urban and rural activities).

CM 5 – Key species

By 2031, the extent and condition of the habitat of bottlenose and Indo-Pacific humpback dolphins, dugongs, sharks, turtles and wader birds will be equal to or greater than that in 2001 for each species.

The presence of iconic species is an indicator of the health of our coastal and marine environments and a key contributor to the tourism industry.

CM 6 – Coastal algal blooms

By 2031, the extent and frequency of coastal algal blooms (CAB) will be reduced from the 2002–2005 benchmark (five-year rolling average).

Algal blooms in estuarine and marine waters of SEQ have been increasing in frequency and extent since the mid-1990s. Algal blooms impact on water quality, biodiversity, human health, and the recreational and commercial values of coastal waterways.

CM 7 – Coastal wetlands

By 2031, the condition and extent of SEQ coastal wetlands, particularly those connecting fresh and estuarine/marine habitat (including fish passage), will be equal to or greater than that in 2007.

Coastal wetlands provide critical habitat and key ecosystem functions within the coastal zone. The connection of coastal wetlands to other water bodies (rivers, creeks, estuaries and oceans) is a critical component to the ecosystem function.

Traditional owner perspectives

"The coasts and seas were the home of many of our people and traditionally supported the largest populations. They have always remained highly important to us. Many of our cultural heritage sites lie in the coastal zone. These areas have very high bio-diversity values but also are the areas most strongly affected by high-density population and unceasing development. They are heavily impacted and many biological communities have effectively been wiped out. They are under threat of continuing decline." (2008 SEQTOA)

Community

Recognition of previous and existing natural resource managers is one of the guiding principles of the SEQ NRM Plan. The region has a history of voluntary community action supported by industry and government investment. Private landholders manage the majority of the region. Therefore, it is a priority to enhance and maintain the capacity and ability of the community to engage in planning, implementing and monitoring local actions to support the achievement of regional targets.

Sustainable levels of community wellbeing and the favourable social and economic conditions that support cohesive, inclusive and healthy communities are required to support the achievement of regional targets. Key activities include supporting individuals, land managers, industry and communities to: further develop their skills, enhance their knowledge, obtain the necessary information and resources, and to work together with all levels of government. In particular, peri-urban communities require ongoing support to develop the networks required to build community capacity. Peri-urban communities collectively occupy large areas of the region. Effective engagement and resourcing of this sector is important for achieving targets in this plan.

Community investment in natural resource management has been crucial in the past and will continue to be the key to the achievement of targets listed in this plan.

Government investment and support will remain integral to achieving regional targets.

SEQ Regional Plan desired regional outcomes and principles

DRO 6 – Strong communities

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

Principle 6.4 Building strong communities

Develop and support strong, functional and connected communities through the process of growth and change in SEQ.

DRO 4 – Natural resources

Principle 4.1 Natural resource management

Policy 4.1.2 Engage the community, traditional owners, landowners and industry in promoting and practising sustainable natural resource management.

The following regional target seeks to achieve DRO 6, DRO 4 and associated principles of the SEQ Regional Plan.

C 1 – Community

By 2031, natural resource managers, government and non-government organisations will be resourced and working together to implement the SEQ Natural Resource Management Plan.

This target will enable the necessary networks and structures to be available, financially stable and adequately resourced. These networks, structures and groups must be resilient with a clear purpose aligned to the regional targets.

On-ground works need to be undertaken, monitored, evaluated, reported and reviewed to allow adaptive management of our natural resources.

Key interim target:

- By 2012, effective regional and sub-regional structures will be coordinating involvement and investment to implement the SEQ NRM Plan.

Traditional owner perspectives

"Traditionally, our country supplied the resources we needed but it was our culture and the people of our community that made life possible. Our cultural groups were collectives, with sharing and mutualism their underlying principles. Our whole groups gathered from time to time to resolve their disputes and share their resources. Our customs and ceremonies led us into unity—the goal we still celebrate. In modern times people use resources from around the world and can live in isolation from day to day. Our people are recovering from the shocks and losses of colonisation. Aboriginal people have been citizens of Australia for only two generations. We are now engaging in the economy and with government in planning and decision making. Only in the last few years have we had the opportunity to play a role in the broader community's management of natural resources. We need support to build our capacity for a more active contribution." (2008 SEQTOA)

Land

The distribution and accessibility of the region's land resources influence the location of economic activities such as farming, forestry and extractive industries. Many of these resources are limited and some are non-renewable. Overuse or irreversible loss of resources could have significant environmental, economic or social impacts on the region.

The condition and extent of land is important for the supply of food, fibre and other materials to support the society and economy of the region. Land use and development has caused several forms of land degradation and cumulative impacts that need to be addressed. Increased adoption of land management practices that address identified hazards and risks and the introduction of rehabilitation measures are important considerations to aid the recovery of landscapes, sustain longer-term productivity and reduce environmental impacts across the region.

Healthy soils and high levels of vegetation cover reduce the movement of excess nutrients and sediments in water runoff into streams and through percolation into the groundwater. This filtering of water aids in controlling pollution and providing good-quality water.

Soils, and the crops and grasslands they support, are potentially large reservoirs for storing carbon. This role will become increasingly important in efforts to mitigate climate change in the future, as our understanding of the capacity of natural systems to absorb carbon develops.

SEQ Regional Plan desired regional outcomes and principles

DRO 4 – Natural resources

Principle 4.2 Land, extractive resources, minerals, forestry and fisheries

Manage the region's natural economic resources to sustainably and efficiently meet the needs of existing and future communities.

The following regional targets seek to achieve DRO 4 and associated principles of the SEQ Regional Plan.

L 1 – Salinity

By 2031, the area of secondary salinisation in SEQ will be 10% less than in 2008.

Salinisation of land resources reduces their ability to meet the food and fibre needs of communities. Plants and soil organisms are killed, or their productivity is severely limited, on salt-affected lands.

Management of salinisation requires an understanding of the hydrological flow systems, the inherent hazards of the soil profile and the impacts of land management and land-use decisions that may trigger salinity.

Secondary salinity can also cause significant damage to infrastructure such as roads, buildings, bridges and pipelines.

Salinised lands also promote nutrient and sediment runoff into streams affecting surface- and groundwater quality and ecosystem services.

L 2 – Agricultural land

By 2031, >90% (>266 667 ha) of SEQ agricultural land as at 2004 will be available for sustainable agriculture.

The protection and sustainable management of agricultural land is important to safeguard the capacity of the region to produce food, fibre and other materials for communities. Integral to sustainable production is the appropriate provision and sustainable management of resources such as water.

The productive capacity of agricultural land can be impacted by a land-use change that effectively cuts up (fragments) productive areas of land, or brings them into conflict with adjoining land uses (such as urban development). Managing this fragmentation and land-use conflict is important for the future productivity of SEQ's agricultural land.

L 3 – Soil acidity

By 2031, the area of acidified agricultural soils within SEQ will be reduced by 50% from the 2008 baseline.

Decreasing soil acidity (i.e. pH becoming more acid) is a fundamental soil health condition indicator in SEQ. Soil acidity (pH) affects the availability of soil nutrients to plants. This then affects plant growth and the productivity of our agricultural lands. A decline in soil health reduces the ability of our land resources to supply food, fibre and other materials for communities.

Key interim target:

- By 2010 the baseline for soil acidity extent will be established.

L 4 – Soil organic matter

By 2031, the level of soil organic matter (carbon in t/ha) in agricultural soils will be higher than in 2008 or the baseline year.

Organic matter, particularly soil carbon levels, plays an essential role in soil condition. It has a large impact on characteristics such as soil structure, soil buffering capacity, nutrient availability, movement of water and oxygen through the soil profile, soil microbial populations and plant disease prevention.

A decline in soil health reduces the ability of our land resources to supply food, fibre and other materials to existing and future communities.

L 5 – Acid sulfate soils (ASS)

By 2031, the area of 'severe' acidification caused by the disturbance of ASS will be lower than in 2008.

ASS is the common name for soil or sediments containing iron sulphides, the most common being pyrite. Iron sulfides are formed through natural processes. However, when ASS are exposed to air by drainage or digging and then wet again, these soils produce sulfuric acid, often releasing toxic quantities of iron, aluminium and heavy metals. Acid runoff causes a range of detrimental impacts to the environment, coastal development, fishing and agricultural industries including:

- poor water quality leading to the damage of ecosystems and wetlands
- the loss of fisheries and other aquatic ecosystems and agricultural production
- the release of nutrients of concern to coastal algal blooms
- damage to bridges, roads, jetties and other infrastructure.

L 6 – Soil erosion

By 2031, the extent of erosion from hill slopes and gullies will be reduced by 50% from the 2008 baseline.

Soil erosion is accelerated by high-intensity rainfall and surface-water runoff and affects both rural and urban areas. Degradation from soil erosion causes the removal of topsoil on hill slopes, and soil loss from gullies. The consequences are reduced future productivity, offsite damage to infrastructure, siltation of dams, and an increased cost for the treatment of water supplies. The economic impact of soil erosion is difficult to quantify, but includes considerable private and public costs.

L 7 – Grazing land condition

By 2031, 75% of grazing land in SEQ will be in a 'good' condition.

The assessment of land condition accounts for several attributes, including pasture condition, soil surface, declared pests, biodiversity, salinity, riparian vegetation and natural resources.

The management of grass-cover to manage soil erosion and mass movement (landslip) is fundamental to the sustainable management of land resources. Improving land condition increases the productive potential of grazing lands and enhances biodiversity.

Managing soil erosion through adequate grass-cover also contributes to enhanced water quality.

L 8 – Land contamination

By 2031, existing contamination sites and off-site impacts will be reduced; and no new sites created over 2008 baseline data.

Soil contamination can contribute to sickness or death in people, plants and animals. Long-term soil contaminants such as persistent organochlorine pesticides (dieldrin and heptachlor), cadmium, lead and high-energy radiation are more insidious because they can accumulate to unacceptable levels in food plants and farm animals without causing visible harm to their hosts.

L 9 – Extractive resources

By 2031, extractive resources within "key resource areas" in SEQ will be available for their highest use with no net loss of other environmental and landscape values.

South East Queensland's extractive resources are dispersed across the region. Major hardrock resource deposits include those in the Petrie–Narangba, Kholo Creek and Darlington Range areas and at Bli Bli, Yandina Creek, Bracalba, Mount Cotton, Nerang, Bromelton and Wellcamp Downs. Important sand and gravel resources are located in the alluvial flats of the Brisbane, Mooloolah, Pine, Coomera and Logan rivers, and in coastal deposits at Beachmere and Jacobs Well.

State Planning Policy 2/07: Protection of Extractive Resources (SPP 2/07) ensures the long-term availability of extractive resources of state or regional significance, and provides the basis for identifying and protecting them as key resource areas in local government planning schemes. SPP 2/07 does not guarantee access to extractive resources where other statutory matters must be considered.

The region's mineral resources include coal, metallic ores and industrial minerals such as rutile, zircon, and silica and foundry sand. Locations include the coalfields around Ipswich, mineral sands on North Stradbroke Island and sandstone near Helidon. Other known deposits include silica sand, dolomite, diatomite, perlite and ceramic clay. Granted mining leases, claims, licences or applications cover most of the region's valuable mineral resources.

Traditional owner perspectives

"The land, the earth, is our mother. It contains evidence of our timeless occupation of this region. It contains many sacred and spiritual places that empower us and assure our survival. We come from the land; it made us. When we die we return to the land and our spirit remains. The land contains our ancestors. It is the land and the water, 'our country', which gives authority to our leaders. When we are in our own country we feel its spirit. Our land sustains us. We revere it."
(2008 SEQTOA)

Nature conservation

Nature conservation is the protection and maintenance of nature while allowing for its ecologically sustainable use. The region has one of the richest diversities of animal and plant species in Australia. About 4000 plant species and 800 freshwater and terrestrial vertebrate species are native and distributed across a wide range of vegetation types and environments.

The targets in this section relate to the conservation and management of wildlife habitats and wetlands, in particular the large tracts of continuous vegetation and the corridors, or connections, between them. Coastal and marine areas are also very rich in species and habitats that supply essential services to the community (refer to the coastal and marine section). There are a number of statutory instruments and environmental programs (such as weed- and pest-management programs) that assist the conservation of regional biodiversity values.

The 35% of original (remnant) vegetation and the 22% of additional non-remnant woody vegetation that covers the region offer good-quality air and a habitable climate. These help buffer against the potential effects of climate change. Significant areas of vegetation will assist to offset the increases in temperature that are predicted under climate change, and the physical presence of vegetation can assist to minimise damage from extreme weather events such as cyclones and flooding.

Vegetation also contributes to the supply of good-quality water for human, agricultural and industrial use. This is the basis of a healthy and productive society and economy. Natural ecosystems also supply food, fuel, building materials, fibre and ornamental resources for small and large industries.

The rich biodiversity of the region contains invaluable genetic resources and biochemicals that have the potential, or already contribute to, the supply of medicines and pharmaceuticals and other industrial products. Without vegetation and insects such as bees, pollination of natural and agricultural plants would be severely constrained resulting in a decrease in food supplies, fuel, building materials, fibre and ornamental resources and the survival of many of our ecosystems.

Healthy ecosystems free of weeds and pests are also more robust and present favourable conditions to reduce the impact of pests and diseases in human, agricultural and natural systems. Natural landscapes within the region provide aesthetic inspiration to residents and visitors, and the iconic native species they contain are critical to the tourism economy.

Nature conservation areas also have great cultural significance to our Indigenous peoples and display spiritual and religious values appreciated across regional communities. They also present recreational opportunities for a growing population seeking relief from the pressures of modern-day society.

Climate change will affect the functioning of natural areas, primarily due to changes in temperature and rainfall. This will impact upon the ongoing suitability of natural areas for existing species. Given this, larger buffers and connectivity between natural areas should be created or expanded to give species every opportunity to shift and adapt to climatic changes.

The provision of all ecosystem services relies on the supporting habitats that are the backbone of nature.

SEQ Regional Plan desired regional outcomes and principles

DRO 2 – Natural environment

A healthy and resilient natural environment is protected, maintained and restored to sustainably support the region's rich biodiversity and ecosystem services including clean air and water, outdoor lifestyles and other community needs that critically underpin economic and social development.

Principle 2.1 Biodiversity

Protect, manage and enhance the region's biodiversity values and associated ecosystem services and maximise the resilience of ecosystems to the impacts of climate change.

The following regional targets seek to achieve DRO 2 and associated principles of the SEQ Regional Plan.

NC 1 – Remnant and woody vegetation

By 2031, the 2001 extent of regional vegetation cover—including remnant vegetation (35%) and additional non-remnant woody vegetation (22%)—will be maintained or increased.

There is broad recognition that at least 30% remnant vegetation cover is required to maintain a minimum level of species and ecosystem function throughout a region. Studies have also indicated a progressive decline of species and greater rate of extinctions with incremental habitat loss.

The condition of vegetated areas is not currently measured at a regional scale. Active management of these areas, including weed, pest and fire management, is a key supporting action in achieving this target.

Remnant vegetation cover varies across SEQ and while 35% remains the regional target, targets to support this goal will need to be considered in each catchment/local government area.

NC 2 – Vegetation fragmentation and connectivity

By 2031, there will be no net fragmentation of larger tracts (greater than 5000 ha) and 20% of priority smaller tracts (less than 5000 ha) will be better connected than the 2003 baseline.

Large areas of vegetation (greater than 5000 ha) provide significant areas of habitat. Vegetated corridors between tracts may provide opportunities for gene flow and animal movement that can increase plant and animal population viability.

Bushland that is well connected provides a habitat network that has greater resilience to the effects of disturbance, including climate change, than small, isolated areas of bushland. Large numbers of smaller but significant areas of bushland are spread across the landscape; activity to connect them to the larger tracts and with each other will enhance corridor networks in SEQ.

NC 3 – Wetlands

By 2031, the 2008 extent and condition of SEQ wetlands will be maintained or increased.

Wetlands assist in the maintenance of water quality and provide habitat for a large diversity of plants and animals.

The condition of wetlands is not currently measured at a regional scale. Active management of these areas, including weed, pest and water-quality management, is a key supporting action in achieving this target.

NC 4 – Vulnerable ecosystems

By 2031, at least 4% of the original pre-clearing extents of vulnerable regional ecosystems will be represented in protective measures.

Vulnerable regional ecosystems are those that are in danger of disappearing. The variety of ecosystems protected by planning or tenure measures should be enhanced to ensure the ongoing provision of important ecosystem services.

Protective measures include Areas of Estate 2007 (including national park, conservation park, resource reserve, forest reserve, State forest and timber reserve), local government reserves, environmental covenants and voluntary conservation agreements.

NC 5 – Native species

In 2031, the 2008 conservation status of native species will be maintained or improved.

Loss of species can have cascading effects and potentially lead to ecosystem collapse. The conservation status of species must be maintained or improved to maintain healthy ecosystems.

NC 6 – Habitat for priority species

By 2031, the 2001 extent and condition of habitat for priority taxa will be maintained or increased.

Loss of habitat is the major threatening process in SEQ. Core habitat (those areas that provide high-quality habitat for plants and animals) must be maintained and increased. Weed, pest and fire management will be keys to achieving this target.

Traditional owner perspectives

"Traditionally, the plants and animals of our country were created from the spirits of our dreamtime ancestors. We were bound to respect them. We trod lightly on the land, moving frequently so that no species was endangered. Transient, cyclical occupation allowed the regeneration of species. We each carried special responsibility for some species that represented a special part of our identity. Our elders managed our country and its resources with seasonal closures to protect those that were vulnerable. Nearly all species had some traditional use: for food, medicine, fibre, art, tools, structures, utensils, fire, adhesives and dyes. The current extinctions and threats to our heritage, running globally at the highest levels of the human era, sadden us." (2008 SEQTOA)

Regional landscape areas

The quality of life enjoyed by people in the region is supported by access to, and connection with, the unique landscapes of the region. Regional landscape areas include historically, or culturally, significant landscapes that form part of the heritage of the area (e.g. iconic landscapes such as the Glasshouse Mountains, Lamington National Park, Moreton Bay and the islands).

These regional landscapes help to define the region's character and our sense of belonging. The natural resources and ecosystem services of these areas underpin the region's ecological, social and economic sustainability.

The combination of the natural and cultural values of our regional landscapes support a healthy, outdoor lifestyle envied across Australia and around the world. Evidence continues to emerge regarding the many benefits derived from an outdoor lifestyle and access to open space. These include increased workforce productivity, reduced levels of health spending and support for the tourism and outdoor recreation industries.

The rapid growth of population and development in our region requires a coordinated approach to the planning and management of regional landscape areas.

The regional community greenspace network preserves and protects regionally significant open space for public access and provides for outdoor recreation, nature conservation, scenic amenity, water catchment management, forest production, spiritual connections, cultural heritage, education and scientific research.

The existing regional community greenspace network comprises less than 20% of the region's land area. Toward Q2: Tomorrow's Queensland sets a statewide target of protecting 50% more land for public recreation by 2020. The proposed SEQ Greenspace Strategy will help to secure more land for public recreation for the region to help meet this state target.

Most of the existing regional community greenspace network is owned and managed by state or local governments, and includes national parks, marine parks, state forests, beaches, major waterways and Moreton Bay, regional parks, recreation trails, water supply dams and major urban parks. In the future, it may include strategically located private lands under voluntary arrangements.

SEQ Regional Plan desired regional outcomes and principles

DRO 3 – Regional landscape

Key environmental, economic, social and cultural values of the regional landscape are identified and secured to meet community needs and achieve ecological sustainability.

Principle 3.1 Regional landscape values

Protect, manage and enhance the multiple values of the regional landscape and optimise the contribution these values make to the region's liveability, health, lifestyle and economy.

Principle 3.2 Regional landscape areas

Focus coordinated planning, management and investment in priority regional landscape areas to optimise multiple community benefits.

Principle 3.3 Regional landscape management

Support and align research, planning, investment and institutional arrangements to protect, manage, monitor and restore priority regional landscape areas.

Principle 3.4 Community greenspace network

Provide an integrated, high-quality, regional community greenspace network to cater for a range of community and environmental needs.

Principle 3.5 Scenic amenity

Identify and protect important scenic amenity areas, view corridors and viewpoints.

Principle 3.6 Landscape heritage

Recognise and manage landscape heritage to maintain character, culture and sense of place.

Principle 3.7 Outdoor recreation

Provide a variety of outdoor recreation opportunities to meet priority community needs, while protecting other regional landscape values.

The following regional targets seek to achieve DRO 3 and associated principles of the SEQ Regional Plan.

RLA 1 – Landscape heritage

By 2031, at least 90% of the 2011 area of regionally important landscape heritage will be retained within each local government area.

SEQ's rich and varied landscape heritage includes both Indigenous and non-Indigenous connectivity with natural, rural and scenic landscapes. It is this connectivity that helps create the special character, culture and sense of place of SEQ.

The traditional owners' connection to country is an important part of landscape heritage.

RLA 2 – Outdoor recreation settings

By 2031, the 2011 extent of regional outdoor recreation settings will be maintained or increased.

Participation in outdoor recreation results in improved body and mental functioning that raises people's wellbeing and lowers the incidence of disease. A reduced occurrence and severity of obesity and a lower incidence of diabetes are two examples of the health benefits from outdoor recreation as part of a healthy lifestyle.

Land for outdoor recreation needs to be provided in both urban and rural areas.

RLA 3 – Outdoor recreation demand

By 2031, 90% of demand for outdoor recreation will be met through a mix of public land, waterways and the voluntary provision of opportunities on private land.

Expanding land-use options—such as rural and eco-tourism, outdoor recreation and environmental management—to augment agriculture can provide a catalyst for growth in rural and regional communities. Relieving recreation pressure on national parks increases their primary role for nature conservation.

RLA 4 – Regionally high-scenic amenity

By 2031, the area of regionally high-scenic amenity will be maintained or improved from the 2004 baseline.

Areas of high-scenic amenity have been identified by the community as providing inspiration and motivation, and are worthy of protection for the enjoyment of current and future generations.

Values and expectations for scenic amenity will change over time.

RLA 5 – Locally important scenic amenity

By 2031, at least 80% of the 2004 area of locally important scenic amenity within each local government area will be retained.

Locally important areas of scenic amenity have values that provide quality of life to local communities. Maintaining and enhancing a significant network of these areas within all regional land-use categories will enhance the liveability of the region.

Traditional owner perspectives

"Our sacred sites throughout the land make a significant, lasting statement confirming and validating our ongoing connection and commitment to honouring all things spiritual in the landscape. Illustrations of this are the network of pathways throughout South East Queensland and extending into other parts of Australia. Song lines are a further cultural enrichment which bonds us spiritually from place to place and tribe to tribe. They show the overall spiritual and ceremonial connection within the nations, tribes, groups, and families. Sites of significance include birthing places, ceremonial sites for inter-group interaction, story places and burial grounds. The landscape is further connected and defined by our cultural group boundaries." (2008 SEQTOA)

Traditional owners

The recognition of traditional owners as natural resource managers is one of the guiding principles of the SEQ NRM Plan. Traditional owner knowledge and values maintained the region for millennia. A key activity is to achieve active involvement of Aboriginal and Torres Strait Islander peoples in community planning and decision making.

Traditional owner knowledge and values kept the region in a pristine condition for millennia before intensive non-Aboriginal settlement. European settlement led to a high degree of physical separation of the traditional owners from their lands and waters. From that time, for about 150 years, Aboriginal capacity to manage land (and community issues) was limited due to government policy of the day. From the mid-1970s, capacity began to develop as community welfare and housing organisations were established.

A suitable framework for traditional owner engagement—in a manner consistent with their cultural group wishes and expressed through culturally appropriate, decision-making processes—was negotiated by cultural groups only in recent years. The South East Queensland Traditional Owners Alliance (SEQTOA), whose membership includes most SEQ Indigenous groups, was incorporated in late 2005. In 2007, this body began to develop its organisational capacity and establish partnerships across other sectors.

SEQTOA has developed its own SEQ Aboriginal Traditional Owner Cultural Resource Management Plan, "Our Plan", and Regional Investment Strategy. Our Plan presents resource condition targets and management action targets under five themes: Recognition; Genuine consultation and engagement; Capability; Our culture; Our land and sea country (biodiversity); and Making sure Our Plan is working.

The SEQ NRM Plan refers to the SEQ Traditional Owner Cultural Resource Management Plan and its targets and actions, as an integral element of regional natural resource management planning. Our Plan will be implemented by SEQTOA in collaboration with government and non-government partners.

SEQ Regional Plan desired regional outcomes and principles

DRO 7 – Engaging Aboriginal and 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.

Principle 7.1 Traditional owner engagement

Recognise Aboriginal traditional owners as stakeholders in land-use planning processes, and understand and respect their relationship with the land, sea and natural resources.

Principle 7.2 Community engagement

Provide Aboriginal and Torres Strait Islander peoples with historical and contemporary connections to SEQ with the opportunity for active involvement in planning processes.

Principle 7.3 Social and economic equity

Assist Aboriginal and Torres Strait Islander peoples living in SEQ to have equal access to as high a standard of living, good economic prospects and general wellbeing as other residents of the region.

Principle 7.4 Cultural values

Recognise, protect and conserve traditional Aboriginal cultural values in land, water and natural resources, and historical or contemporary Aboriginal and Torres Strait Islander values in places.

The following regional target seeks to achieve DRO 7 and associated principles of the SEQ Regional Plan.

TO 1 – Traditional owners

By 2031, traditional owners and Aboriginal people will be resourced and working together with natural resource managers, government and non-government organisations to implement the SEQ NRM Plan and the South East Queensland Aboriginal Traditional Owner Cultural Resource Management Plan.

Supporting traditional owner involvement in planning, policy and on-ground implementation is an effective way to enable engagement and include traditional owner knowledge in achieving natural resource management outcomes.

Key interim targets:

- By 2012, regional and sub-regional traditional owner groups and Indigenous organisations are resourced to coordinate involvement and investment to implement the SEQ NRM Plan.
- By 2012:
  i. 20% of SEQ traditional owners will be engaged in natural resource management policy, planning, education, training and working on country
  ii. 10% of the Indigenous workforce will be employed in natural resource management policy, planning, education, training and working on country.
- By 2012, all cultural heritage sites and landscapes are managed by enforceable cultural heritage plans negotiated with the relevant traditional owners.
- By 2012, all culturally significant animal and plant species are identified, recorded, classified according to risk and incorporated in local, regional and state planning and policy.

M. Serico

Water

Water resources in the region provide amenity values and clean water for human consumption, environmental flows, recreation, agricultural and industrial uses.

Water resources also provide habitat for many important plants and animals, including iconic species. Water-based ecosystems, particularly wetlands and their components (e.g. vegetation cover and soil), filter impurities such as excess nutrients and sediments from water. The filtering of water aids in controlling pollution and improving water quality.

The efficient use of water by all users has been a high priority for the region during the Millennium Drought. This priority is set to remain with our lakes and waterways becoming important refuges for plants and animals under the potential effects of climate change. Water bodies will also contribute to cooler land temperatures in certain localities, providing favourable conditions for the survival of some species and assisting local communities.

Total water-cycle management recognises the interrelationships between the human uses of water and its role in the environment. Key principles include:

- natural cycles—minimising the alteration to natural flow and water-quality regimes
- sustainable limits—ensuring that the volume of water extracted from a source is sustainable for the community and the environment
- demand management—reducing demand by minimising water use and losses, and maximising efficient use and re-use
- diversity in new supplies—considering all potential sources of water when new supplies are needed, including re-using water and stormwater
- water quality—managing the water cycle at all phases to preserve water quality for the community and the environment.

The domestic, industrial and agricultural water supply and water use efficiency strategies currently in place are a crucial component of total water-cycle management and should continue into the future.

Water sensitive urban design (WSUD) integrates total water-cycle management into the built environment to minimise the effects of development on the natural water cycle and to address water supply and use.

A supply of locally sourced food and fibre is dependent on reliable supplies of good-quality water. The management of our waterways and catchments as a total water-supply system is important if we are to minimise critical water shortages and regional and inter-regional tensions based on competition for water; especially in the context of reduced surface-water availability as a likely outcome of climate change.

The Healthy Waterways Ecosystem Health Monitoring Program Report Card provides an annual assessment of the health of fresh and tidal waters in SEQ to guide future management actions.

SEQ Regional Plan desired regional outcomes and principles

DRO 11 Water management

Water in the region is managed on a sustainable and total water cycle basis to provide sufficient quantity and quality of water for human uses and to protect ecosystem health.

Principle 11.1 Total water cycle management

Plan and manage water as a valuable and finite regional resource on a total water cycle basis.

Principle 11.2 Water supply planning

Supply sufficient water to support a comfortable, sustainable and prosperous lifestyle, while meeting the needs of urban, industrial and rural growth, and the environment.

Principle 11.4 Waterway health

Protect and enhance the ecological health, environmental values and water quality of surface and groundwater, including waterways, wetlands, estuaries and Moreton Bay.

Principle 11.5 Drinking water catchment protection

Manage risks in drinking-water catchments to achieve acceptable water quality.

The following regional targets seek to achieve DRO 11 and associated principles of the SEQ Regional Plan.

W 1 – Environmental flows

By 2031, environmental flows will meet aquatic ecosystem health and ecological process requirements.

Dams can alter downstream habitats, water extraction, land modification and point source discharges that disrupt natural flow regimes. Ecosystem processes, the lifecycles of aquatic species and the distribution and abundance of aquatic life may be affected where flows are disrupted. This occurs in most waterways in SEQ, and it threatens the long-term viability of aquatic ecosystems.

Key interim targets:

- By 2017, water resource plans will determine environmental flow targets to meet ecosystem requirements.
- By 2017, the impacts on aquatic ecosystem health and ecological processes caused by interaction between surface and groundwater will be assessed.
- By 2017, the impact of peak flows on aquatic ecosystem health and ecological processes will be assessed.

W 2 – Groundwater levels

By 2031, 75% of SEQ groundwater resource units will have groundwater levels within identified acceptable annual ranges.

The rate of groundwater recharge varies across SEQ. In some areas, the level of the water table determines whether there is water in the streams. A high rate of groundwater extraction for increasing irrigation and urban use, coupled with expanding drought conditions, is placing groundwater resources across the region under pressure.

An identified groundwater resource unit is a declared or monitored groundwater system (i.e. Lockyer, Cressbrook, Warrill/Bremer, Sand Islands, Brisbane, Cooloola Sand Mass and buffer areas around the Upper Brisbane/ Stanley rivers).

Key interim targets:

- By 2017, appropriate groundwater resource units, including associated monitoring requirements, will be identified and defined.
- By 2011, any risk (beyond sustainable use) groundwater resource units will be prioritised.
- By 2017, an acceptable annual range to protect aquatic ecosystem health and ecological processes and to provide sustainable yield for urban and rural use will be assessed.

W 3 – Groundwater quality

By 2031, groundwater quality (nutrients and EC measurements) in all SEQ groundwater resource units will be within identified acceptable annual ranges.

Rapid population growth is increasing the area of rural residential and urban developments with a corresponding increase in septic and sullage wastewater discharges that can seep into the groundwater system.

Urban areas also present a wide variety of groundwater pollution sources, including fuel stations, industrial sites, contaminated sites, dumps and landfills. Agriculture and intensive industry are other potential sources of increased nutrient concentration in the groundwater.

Key interim targets:

- By 2012, groundwater quality parameters and the acceptable annual ranges for measurement will have been defined.
- By 2012, the SEQ groundwater quality guidelines, with reference to ANZECC, will be defined.
- By 2012, the ambient water-quality monitoring required in groundwater management units will be assessed.
- By 2015, a groundwater monitoring program will be established.
- By 2017, there will be assessment for the location of groundwater resource units in future growth areas to support monitoring, management and protection of water quality of these important water resources.

W 4 – Groundwater dependent ecosystems

By 2031, the condition of groundwater ecosystems and groundwater dependent ecosystems will be within identified acceptable annual ranges.

Groundwater in aquifers and caves supports unique ecosystems. These contain a variety of organisms that spend their whole life underground and are subject to extremely uniform conditions compared with surface life. Groundwater interacts with surface water, and these interactions support the structure and function of groundwater-dependent ecosystems, including springs, streams, wetlands and swamps.

These interactions are not always easy to identify, and even more complex to quantify—yet poor management of the interaction can have negative impacts upon water resources, aquatic ecosystems and the services they provide.

Knowledge of the location, nature, quality and biota of groundwater ecosystems in particular—and of groundwater-dependent ecosystems in the SEQ region—is, in many areas, inadequate to assess condition.

Key interim targets:

- By 2012, the location, nature, quality and biota of groundwater ecosystems in particular, and of groundwater-dependent ecosystems in the SEQ region, will be assessed.
- By 2012, an acceptable annual range of groundwater levels and quality to protect aquatic ecosystem health and ecological processes will be identified.

W 5 – High Ecological Value waterways

In 2031, High Ecological Value waterways in SEQ will maintain their 2008 classification.

High Ecological Value (HEV) waterways scheduled under the Environmental Protection (Water) Policy (EPP) 1997 are effectively unmodified or are other highly valued systems. These typically (but not always) occur in national parks, conservation reserves or in remote and/or inaccessible locations.

High-priority areas that represent critical aquatic and riparian habitat, and areas that make an important contribution to waterway health (including water quality) in the region, need to be protected and conserved.

W 6 – Waterways maintenance and enhancement

In 2031, scheduled water-quality objectives for all SEQ waterways will be achieved or exceeded.

Environmental Values (EV) are the qualities of waterways that need to be protected to ensure healthy aquatic ecosystems and waterways are safe and suitable for community use.

Water Quality Objectives (WQOs) are the levels of measurable indicators of EVs. The EPP (Water) is a source of scheduled EVs and WQOs for SEQ waterways.

This target includes potable, or drinking water, supplies from streams and dams. The achievement of this target is crucial for the supply of clean drinking water.

Management that is focused on achieving or maintaining the WQOs necessary to support agreed EVs will provide the most secure approach to minimising the social, economic, public health and environmental risks associated with a decline in water quality in SEQ waterways.

The Ecosystem Health Monitoring Program (EHMP) provides an annual report on the achievement of the scheduled water-quality objectives for freshwater, estuarine and marine areas.

W 7 – Waterway restoration

By 2031, waterways that are currently classified as ranging from slightly to moderately disturbed and/or highly disturbed will have their ecosystem health and ecological processes restored.

The health of waterways is crucial to the health of receiving waters such as Moreton Bay.

The annual Ecosystem Health Report Cards for freshwater, estuarine and marine waters indicate that the health of SEQ's waterways ranges from very good to very poor. For example, in 2006, the Noosa River scored an 'A-' (excellent) grade and the eastern banks of Moreton Bay scored an 'A' grade; however, the Bremer and Albert rivers scored 'F' (fail) grades in the same year. In recent years, report card grades for the region's waterways have not changed significantly, despite high levels of investment in water-quality improvement actions and several dry years (which reduces the export of pollutants to receiving waters). This result underlines the difficulty of just maintaining waterways at their current state of health, given the ongoing rapid development within the catchments.

Extensive clearing of riparian areas and stock access to riparian and in-stream areas have caused declining waterway health. The restoration of degraded riparian areas along waterways and wetlands is important for reducing sediment and nutrient loads to waterways and for restoring waterway health and wildlife habitat.

Key interim target:

- By 2020, an additional 20% or more of riparian areas, above the 2008 baseline, will have been restored in strategic locations.

Traditional owner perspectives

"Our rivers, creeks, wetlands and seas are powerful places, strong in spirit. They complement our traditional land resources. Their courses show the paths of creation beings. Water is the life sustainer. Wetlands gave our ancestors their main food supplies. Water signifies the female. Many sacred women's places including birthing places are close to running waters. Water is for cleansing and spiritual purification. Traditionally, we put no waste in water. Water is for drinking; by people and by the animals and birds we live among. Water must be kept pure. Traditionally water courses were naturally formed by the water cycle, from rain to wetland, from stream to sea. Now watercourses are changed and directed by engineering." (2008 SEQTOA)

Endmatter

The endmatter includes the following items to explain technical or unfamiliar words and shortened forms used in natural resource management:

1. Glossary
2. Abbreviations and symbols

Appendixes are treated separately in the next section.

Glossary

Term	Description
Acid sulfate soils	Soils containing iron sulfides, commonly found in low-lying coastal areas. When these soils are exposed to oxygen through drainage or disturbance, the pyrite undergoes chemical reactions to produce sulfuric acid, which is then washed into waterways.
Artificial light	A source of light generated by technology.
Biodiversity	Biological diversity: the variety of life in all its forms—different plants, animals and micro-organisms, the genes they contain and the ecosystems they form.
Capacity building	Working with people to enhance their skills and abilities, communication networks, access to resources and leadership qualities.
Catchment	The area of land on which runoff generated from rainfall is collected and transferred to a waterway.
Community wellbeing	The condition or state of a human community being collectively healthy, contented and satisfied with life. Wellbeing has several components including physical, mental, social and spiritual. Wellbeing can be used in a collective sense to describe how well a society satisfies people's wants and needs.
Ecosystem	A community of organisms interacting with one another and their environment.
Ecosystem services	Services provided by functioning ecosystems that are essential to human survival (e.g. provision of clean air and water).
Electro conductivity	A measure of the total dissolved ions in a solution, which indicates the substance's ability to conduct electricity.
Environmental flow	The water flows required to sustain a healthy environment.
Environmental Values	Particular values or uses of the environment that are important for a healthy ecosystem or for public benefit, welfare, safety or health and which require protection from the effects of development and human activities. Several Environmental Values may be designated for a specific water body (AWQG, 2000).
Estuarine	The tidal part of a river or creek where sea water mixes with freshwater.
Fragmentation	The process of dividing habitats or landscapes into separate fragments by clearing, development and land use.
'Good' land condition	As defined by the 2009 Department of Environment and Resource Management guidelines for determining lease land condition.
Greenhouse gases	Mainly carbon dioxide, methane and nitrous oxide.
Groundwater	Water below the ground surface found in the cracks, voids or pores, spaces or other spaces between particles of clay, silt, sand, gravel or rock within the saturated zone of a geologic formation.
Groundwater resource unit	A hydraulically connected groundwater system that is defined and recognised by state and territory agencies.
Habitat	The environment in which a plant or animal lives.
Harmful algal bloom	Algal blooms in waterways and bays that pose a threat to human and animal health or the environment.

Term	Description
High Ecological Value (HEV) waterways	Effectively unmodified or other highly valued waterways, typically (but not always) occurring in national parks, conservation reserves or in remote and/or inaccessible locations. HEV waterways in SEQ are identified in Schedule 1 of the Environment Protection (Water) Policy 1997.
Infrastructure plan	The South East Queensland Infrastructure Plan and Program 2009–2031.
Land salinisation	The process whereby salts in soil accumulate over time to above normal levels.
Nutrient	A substance that provides nourishment for living organisms but, if present in excessive amounts, can also adversely affect environmental health.
Open space	All land and water areas of any size and type that are characterised by having no or few built structures, and have nature conservation, environmental, scientific, social, recreational, cultural, spiritual, scenic, health or economic benefits for a community, now and in the future. Open space can include wetlands, steep slopes, bushland, wildlife habitat, beaches, lakes, dams, agricultural lands, forests, scenic views, culturally significant places, outdoor recreation areas, buffers and linkages.
Organic carbon	Carbon that has, at some stage, been incorporated into an organism. In aquatic environments, organic carbon is produced by plant photosynthesis and bacterial growth. Leaching of humic substances and decomposition of plants and animals are also natural sources of organic carbon to surface waters. Human-related sources include agricultural runoff and municipal and industrial effluents.
Organic matter	Natural carbon–hydrogen based material originating from plant or animal sources.
Peri-urban communities	Areas, often surrounding urban centres that are characterised by landscape fragmentation, a lack of community facilities, services and infrastructure. They are usually land parcels of 5 to 100 acres, predominantly lifestyle-based enterprises and with dynamic demographic and land-use changes. Most have a history of subdivision of previous rural areas.
pH	A scale used to describe the degree of acidity or alkalinity of a substance. The pH range is from 1–14 with low pH substances being acidic and high pH substances being alkaline. Neutral is pH 7.
Photochemical smog	Secondary pollutants formed by the action of hydrocarbons and oxides of nitrogen in the presence of strong sunlight.
Pollutant	A substance that may naturally occur but is present at harmful levels (e.g. sediment or nutrients in a water body) or which may be unnatural in the environment and capable of producing environmental harm (e.g. chlorinated pesticides).
Priority species	Species with the habitat suitability models in the Environmental Protection Agency SEQ Biodiversity Planning Assessment.
Regional land-use categories	The land-use categories in the SEQ Regional Plan that provide the spatial context for the regulatory provisions: urban footprint, rural living area, regional landscape and rural production area.
Regional Landscape and Rural Production Area	A regulated land-use category in the SEQ Regional Plan dominated by non-urban uses and activities.
Regional Plan	The *South East Queensland Regional Plan 2009–2031*
Remnant vegetation	Areas of relatively mature native vegetation remaining in the landscape—also legally defined under the *Vegetation Management Act 1999* for the purposes of that Act.
Riparian	Associated with the banks of a freshwater watercourse (creeks, rivers, pond or lake).
Riparian zone	The area of land immediately alongside both sides of a waterway that directly influences waterway form and function, supports a varying range of ecological and amenity values, and acts to buffer the waterway from the impacts of development and human activities.
Salinity	The increased accumulation of excessive salts in land and water at sufficient levels to impact on humans and natural resources (plants, animals, aquatic ecosystems, water supplies, agriculture or infrastructure).
Scenic amenity	The measure of a landscape's scenic qualities, reflecting the psychological benefit that the community derives from viewing it. *South East Queensland Regional Plan implementation guideline No. 8: Identifying and protecting scenic amenity values* outlines a common method and assessment criteria for assessing scenic amenity, and describes acceptable solutions to maintain and manage scenic amenity areas, view corridors and viewpoints.
Secondary salinity	The salinisation of land and water resources due to the impact of human activity.
Sediment	Solid material settled from suspension in a liquid.
Soil acidification	The build up of hydrogen cations or protons in soil when an acid or other compound is added to the soil and reacts to release protons. This includes nitrogen compounds added to soil as fertiliser. Acidification also occurs as a consequence of the loss of base cations (calcium, magnesium, potassium and sodium) from leaching or removal of harvested products such as grain, hay and timber.
Soil structure	The arrangement of particles and air space in soils.

Term	Description
Stakeholders	Individuals, groups or organisations with specific interest in and/or influence on a project.
Taxa	Units of biological classification. Taxa are arranged in a hierarchy from kingdom to subspecies, a given taxon ordinarily including several taxa of lower rank. In the classification plants and animals, certain taxonomic categories are universally recognised—in descending order, these are: kingdom, phylum (in plants, division), class, order, family, genus, species, and subspecies or race.
Thermal pollution	Rises in the temperature of water bodies (rivers, lakes, streams, etc.) from the disposal of heated industrial wastewater that is injurious to aquatic ecosystems. It also includes the pollution of air from the discharge of heated gases affecting local weather patterns.
Threatened species	Includes endangered, vulnerable and rare under the *Nature Conservation Act 1992*. Species identified as critically endangered, endangered or vulnerable (categories of the International Union for the Conservation of Nature and Natural Resources) in the Environmental Protection Agency's Back on Track species prioritisation framework.
Traditional owners	Aboriginal and Torres Strait Islander people with a particular connection to land under tradition.
Total water-cycle management	A way of managing water, having regard to all facets of its use and environmental values—that is, recognising the whole natural water cycle. The key principles of total water-cycle management include: recognising all potential sources of water, including wastewater and stormwater; using all water sources sustainably; allocating and using water equitably; and integrating water use and natural water processes, including environmental flows and water quality.
Vulnerable regional ecosystems	Endangered and of-concern ecosystems under the *Vegetation Management Act 1999*: ■ Endangered—those ecosystems at serious risk of disappearing from the wild within 10–20 years if present land use and other causal factors continue to operate. Regional ecosystems are endangered when less than 10% of the pre-clearing extent remains in an intact condition. ■ Of concern—where a significant reduction in the distribution or condition of a regional ecosystem has occurred and a particular management response is needed to ensure that it does not become endangered. ■ Poorly conserved—less than 10% of the pre-clearing extent is represented in protected areas.
Water-quality objective	A quantitative description of the physio-chemical quality of water that needs to be maintained for its environmental values to be protected. For example, water-quality objectives have been set to provide stakeholders with knowledge on the level of water turbidity in western Moreton Bay that, if exceeded on a sustained basis, will result in the loss of valuable seagrass meadows.
Waterway	A passage for water or a body of water, including all orders of perennial and ephemeral streams (lined or unlined), rivers and other wetlands, and bays. This includes Moreton Bay and all estuaries, marine waters and foreshores.
Wetland	Areas of permanent or periodic/intermittent inundation with water that is static or flowing fresh, brackish or salt. This includes areas of marine water the depth of which, at low tide, does not exceed 6 metres. To be a wetland, the area must have one or more of the following attributes: i. at least periodically the land supports plants or animals that are adapted to and dependent on living in wet conditions for at least part of their life cycle ii. the substratum is predominantly undrained soils which are saturated, flooded or ponded long enough to develop anaerobic conditions in the upper layers iii. the substratum is not soil and is saturated with water, or covered by water at some time.

Abbreviations and symbols

ASS	acid sulfate soils
ANZECC	Australian and New Zealand Environment and Conservation Council
CAB	coastal algal blooms
CO	carbon monoxide
CO_2	carbon dioxide
CM	coastal and marine
DRO	desired regional outcome
EC	electro conductivity
EPP	environmental protection policy
EVR	endangered, vulnerable and rare
EV	environmental values
HWS	Healthy Waterways Strategy 2007–2012
Ha	hectares
HEV	high ecological value
IPA	Integrated Planning Act
IPCC	Intergovernmental Panel on Climate Change
KASA	key agriculturally strategic areas
LG	local government
LH	landscape heritage
MERI	monitoring, evaluation, reporting and improvement
NHT	Natural Heritage Trust
NRM	natural resource management
NO_2	nitrogen dioxide
O_3	ozone
pH	level of acidity or alkalinity
RE	regional ecosystem
RLRPA	Regional Landscape and Rural Production Area
ROS	recreational opportunity spectrum
SEQ	South East Queensland
SEQC	South East Queensland Catchments Ltd.
SEQRCG	South East Queensland Regional Coordination Group
SEQTOA	South East Queensland Traditional Owner Alliance
SO_2	sulphur dioxide
t/ha	tonnes per hectare
TO	traditional owners
t/yr	tonnes per year
VCA	Voluntary Conservation Agreement
VCC	Voluntary Conservation Covenant
VOCs	volatile organic compounds
WQO	water-quality objective
WSUD	Water sensitive urban design

Appendixes

Appendix 1

Some SEQ natural resource management plans and strategies

Statutory	Non-statutory
SEQ Regional Plan	SEQ Rural Futures Strategy
State Coastal Management Plan	SEQ Water Strategy
South East Queensland Regional Coastal Management Plan	SEQ Nature Conservation Strategy
State Planning Policies (e.g. Good Quality Agricultural Land, Natural Hazards)	SEQ Integrated Natural Resource Management Plan—the Future in the Balance
Koala Conservation Plan	Healthy Land, Our Future—An Integrated Regional Natural Resource Management Plan for the Western Catchments of SEQ
Moreton Water Resource Plan	SEQ Healthy Waterways Strategy 2007–2012
Regional Vegetation Management Code for Broadscale Clearing—SEQ Region	SEQ Healthy Waterways Strategy Action Plans
Regional Vegetation Management Code for Ongoing Purposes—SEQ Region	Catchment Management Plans
Local Government Planning Schemes	Catchment Management Strategies
Local Government Strategic Plans	ClimateSmart Adaptation 2007–12: An action plan for managing the impacts of climate change
Local Government Pest Management Plans	SEQ Forests Agreement
Cultural Heritage Management Plans	Our Plan—SEQ Traditional Owner Alliance Cultural Heritage Management Plan
Logan Albert Water Resource Plan	SEQ Regional Air Quality Strategy
Mary River Water Resource Plan	SEQ Environmental Weeds Strategy
	Environmental Management System (EMS) for Professional Fisheries of Moreton Bay
	Towards Q2: Tomorrow's Queensland

Appendix 2

Pilot to develop a coordinated reporting system in SEQ

The web-based tool *enQuire* (https://www.enquire.net.au/portal/home.htm) presents a central point of natural resource management information and project management tools for natural resource managers. The functionality of *enQuire* is currently being expanded through a project with the SEQRCG to allow natural resource managers to report on their activities/projects.

The desired regional outcomes, principles and policies of the SEQ Regional Plan have been entered into *enQuire*. Agencies can enter their own agent policies and subsequent activities/projects against the SEQ Regional Plan and SEQ NRM Plan targets. Each participating agency has a user who can log into *enQuire* and update their agent policy and activity/project information.

This allows all natural resource management activity in the region to be tracked against the relevant desired regional outcomes in the SEQ Regional Plan. It will facilitate alignment of effort, reduce duplication or, in some cases, conflicting activities. This should result in a more effective use of scarce resources.

A coordinated reporting system through *enQuire* will also allow for the identification of the need for new policy or actions addressing desired regional outcomes and related natural resource management issues. It will also identify where current activity is not progressing as planned and identify barriers that can be addressed in a coordinated and collaborative fashion.

Appendix 3

Coordinated implementation: monitoring, evaluation, reporting and improvement (MERI) system for SEQ

"Is what we are doing having any impact on the state of the resource condition or the health of the SEQ Region?"

The MERI framework will describe how people, information, technology and time interact so that progress towards achieving resource condition targets can be meaningfully assessed and improvements implemented.

The 'people' refers to: the groups or organisation who collect data and information; the individuals and groups who are undertaking management activities at different scales; local communities with an active interest in natural resource management in their area; and the groups who undertake analysis and synthesis of information and data.

The 'information' refers to the different streams of evidence that will be used in the monitoring strategy. This includes measurement (spatial and temporal scale) data and analytical reports and published papers.

The 'technology' refers to the suite of information management systems (including the SEQ NRM Atlas and *enQuire*) that will provide the single 'point of truth' repository. This will capture all alignment information and project activities, as well as provide the interface between a range of measurement data and information sources.

The 'time' refers to the schedules for the wide range of individual monitoring programs in SEQ: when measurement data is captured and subsequently available for syntheses and analysis; the timing of linkages to the five-yearly State of the Region reporting; and the schedule(s) for completing the MERI cycle for all seven assets and targets.

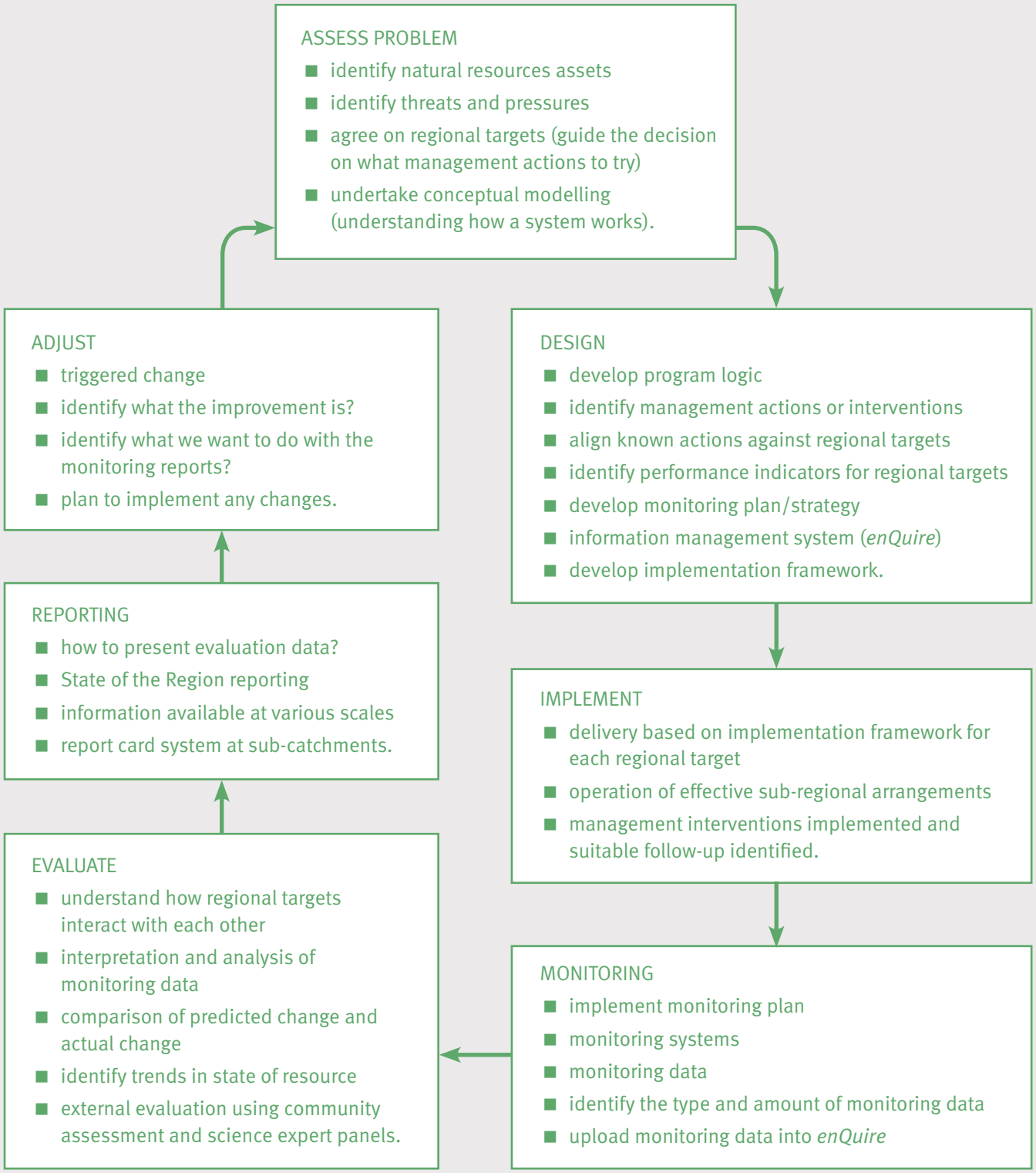
It is the MERI framework that will provide the necessary resilience the SEQ NRM Plan will need to remain relevant over the next 20 years. The MERI framework will ensure that the SEQ NRM Plan is not static and can adapt to changes in technology, community expectations, new scientific information and major environmental events.

A range of MERI tools accompany the MERI framework. These tools are essential to conduct a comprehensive MERI process. It is important to understand the separation between the overall MERI processes and the individual tool's role in making parts of the MERI system happen. Some of these tools are also important to the implementation of the SEQ NRM Plan and are yet to be developed. The MERI tools include:

- a conceptual framework for each target or groups of targets
- a catalogue of activities that contribute towards each target
- specific program logic for each target
- alignment schematics for each asset theme
- conceptual modelling for elements of the assets themes (identify the causal links between management actions and results)
- a catalogue of monitoring programs and measurement data for each target or groups of targets
- a catalogue of significant reports and papers for each target or groups of targets
- sub-regional arrangements
- scientific expert panels
- the *enQuire* technology support system
- decision-support tools: SEQ NRM Atlas which includes the SEQ NRM Future State Atlas; and SEQ NRM GIS.

The MERI framework is designed to measure progress towards the achievement of DRO 4 Natural resources of the SEQ Regional Plan 2009–2031. The following figure sets out the MERI cycle and its key components.

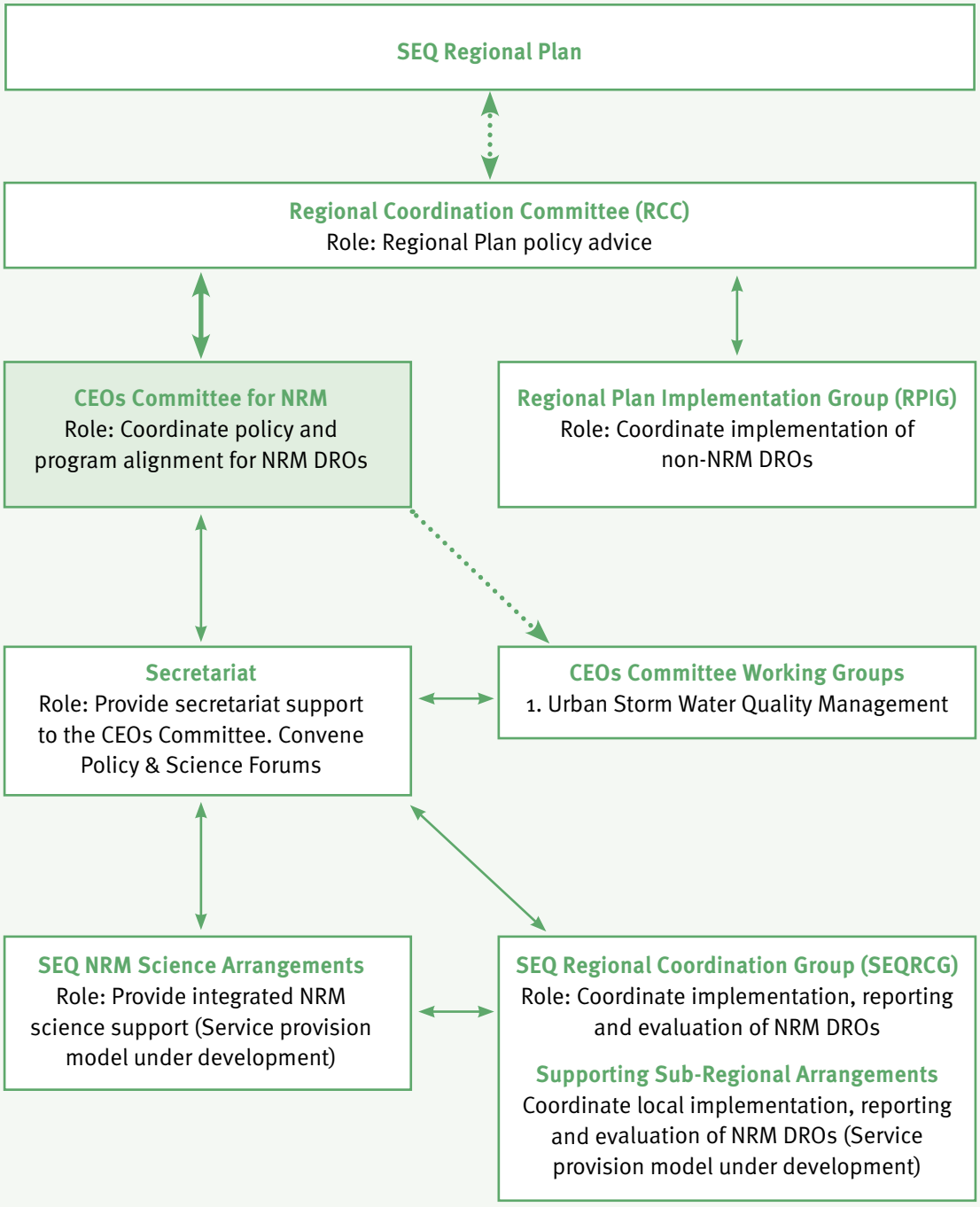
Figure 3: Monitoring, evaluation, reporting and improvement cycle [1]



[1]Modified and adapted from *Adaptive management: The US Department of the Interior technical guide*. Williams BK, Szaro RC, Shapiro CD, Adaptive Management Working Group, US Department of the Interior, Washington D.C., 2007.

Appendix 4

Chief Executive Officers Committee for Natural Resource Management in SEQ (2008 Terms of Reference)



Appendix 5

Implementing the plan

The implementation of the SEQ NRM Plan is best summed up with the words:

> *"... it has taken us well over 150 years to get to where we are now in SEQ. It is likely to take a lot more than one to five years to get our environment and natural resource assets into the condition and trend desired by our community"*.

The implementation process is designed with the understanding that to address many of the environment and natural resource issues will require a concerted, iterative and sustained effort over many years. The SEQ NRM Plan does not take conventional planning paths, but rather establishes a framework of institutional arrangements, principles, targets and adaptive management elements to guide this long-term effort.

Implementing the SEQ NRM Plan will occur through two major processes: statutory and non-statutory processes and activity.

Statutory implementation is established and set out via provisions of the *Statutory Instruments Act 1992* and the *Integrated Planning Act 1997* (soon to be updated with the release of the Sustainable Planning Act which is before Parliament). The statutory implementation processes and activities required of the State Government and regional councils in SEQ will occur via the provisions in these acts that describe the parts the SEQ Regional Plan and its status as a statutory instrument (law).

The SEQ Regional Plan refers to the SEQ NRM Plan in Policy 4.1.1: Coordinate regional natural resource management, planning, investment, monitoring and reporting through implementation of the *South East Queensland Natural Resource Management Plan 2009–2031*.

The SEQ Regional Plan states in DRO 4 Natural Resources Notes that reference to the SEQ NRM Plan in a policy under this desired regional outcome indicates its status as a key implementation mechanism for natural resource management in SEQ, and does not alter the SEQ NRM Plan's non-statutory status.

Implementing the SEQ NRM Plan will also require coordination with the Condamine River Catchment and Wide Bay Burnett NRM Plans, which specifically address the Toowoomba region and the upper reaches of the Mary River catchment respectively.

Non-statutory implementation of the SEQ NRM Plan will occur via a program logic to assist coordination. The SEQ Regional Plan identifies Program 4.1.3: Further develop the SEQ Natural Resource Management Atlas and *enQuire* information management system to implement a strategic and coordinated process for capturing, analysing, managing and monitoring natural resource management information and landholder knowledge.

Adaptive management of the SEQ NRM Plan implementation requires considerable up-front thinking and understanding to ensure effort is monitored, evaluated and reported, and improved.

To deliver on the targets, the Monitoring, Evaluation, Reporting and Improvement (MERI) Framework poses key questions:

1. Are there the data and information?
2. Are there the analytic tools?
3. Is there the scientific understanding?

The MERI framework will describe how people, information, technology and time interact so that progress toward the targets can be meaningfully assessed and improvements implemented.

State agencies and regional councils, as well as representative regional entities from community and industry in SEQ, have been and will continue to work on the SEQ NRM Plan design and implementation at the regional scale. Based on this representative approach, two existing groups ensure effort on the SEQ NRM Plan is coordinated and aligned at the planning and implementation stages: the Chief Executive Officers Committee for Natural Resource Management (CEOs Committee) in SEQ, and the South East Queensland Regional Coordination Group (SEQRCG).

As part of the NHT2 initiative, a comprehensive information resource was designed and built to record project information and status and their relationship to funding programs. The resource, *enQuire*, has been modified to allow SEQ regional entities to input and keep track of all effort in the region that goes toward meeting the SEQ NRM Plan targets from a process point of view.

Information about the environment and natural resource assets (mainly spatial information at this stage) will be managed through a comprehensive geographical information system (GIS) built using the resources of the various members of the SEQRCG. This resource will deliver a number of crucial information services at

the regional level, primarily the SEQ Natural Resource Management Atlas which consists of:

- SEQ NRM Plan Benchmark Atlas, which sets out the best available and most appropriate datasets to describe the current environment and natural resource asset condition and extent
- SEQ NRM Future State Atlas, which sets out the best available interpretation of the environment and natural resource asset as described by the 2031 target
- SEQ NRM GIS, which provides the spatial data about the environment and natural resource assets to inform the MERI work.

The plan is built to complement other strategies supporting the statutory SEQ Regional Plan, such as: the SEQ Outdoor Recreation Strategy, the SEQ Active Trails Strategy, and the SEQ Rural Futures Strategy. To ensure delivery of the targets at the property scale, SEQRCG conducted a series of forums with organisations and people who work in natural resource management at the sub-regional, catchment and local scales in nine different localities across the region: Sunshine Coast, Redlands and Southern Moreton Bay, Lockyer Valley and Somerset, Gold Coast, Brisbane Valley, West Brisbane and Ipswich, Southern Catchments and Scenic Rim, Redcliffe and Northern Moreton Bay, and Brisbane City.

Participants at these forums indicated how natural resource managers work together and suggested ideas to improve coordination in each of the areas in the future. SEQRCG aims to build upon these early conversations and continue the collaborative approach. This will help catalogue existing programs, investment and activities at the local and catchment scale, and connect this to the regional level to provide information on implementation for the targets.

At each scale level, the roles and responsibilities for delivery against the targets will be negotiated and agreed and reported through *enQuire*.

Appendix 6

Frequently asked questions about the SEQ NRM Plan

Q: Why are the targets all aligned to the year 2031?

A: The *South East Queensland Natural Resource Management Plan 2009–2031* (SEQ NRM Plan) has been developed to establish an agreed set of targets that support the sustainability framework promoted in the statutory *South East Queensland Regional Plan 2009–2031* (SEQ Regional Plan). The target timelines are set to align with the timeframe of the SEQ Regional Plan.

Q: Does this mean we have to wait until 2031 to achieve the outcomes outlined by each target?

A: No. The aim of each target is to establish a stretched or aspirational outcome for the region that can be achieved at any stage up to 2031. The targets, by their nature, provide an indication of the end state against which to report our combined effort.

Q: What are interim targets and why are there only some of them?

A: During the technical workshops and consultation activities between 2007 and 2009, scientists, planners and stakeholders provided feedback that indicated some targets required key 'outcome' statements as stepping stones or important elements required to achieve the main target. These are listed as interim targets. More interim targets may be established where required.

Q: Why are there no actions in the plan?

A: The SEQ NRM Plan is not a traditional plan. It is best described as a suite of regional targets to measure the progress of the sustainability framework of the SEQ Regional Plan. They have been developed with the full knowledge of existing action plans (some which have up to 500 actions listed) and are not intended to replace those action plans. The targets, also known as performance indicators, will inform the preparation of future land-use plans, corporate plans, strategies, programs and actions. By reporting activity and investment at local, sub-regional and regional scales against the targets, we will be able to provide a coordinated direction for setting priorities, future actions and investment across the region. Appendix 5 outlines the key aspects and steps for implementation.

Q: Why are different benchmark years identified in targets?

A: Each target is referenced to the most recent and best available region-wide data to establish a baseline for evaluating changes in condition and extent over time. As a result, the benchmark year will vary. Where no region-wide baseline dataset currently exists, one of the first key actions for that target will be to address the information gap to establish a suitable benchmark.

Q: What about using better quality local datasets to inform the baseline for targets?

A: In the first instance, the targets must establish a baseline for the whole of the southeast region. Where better quality local data are available (e.g. local government vegetation mapping), activities to identify and include these datasets will be one of the first actions taken to improve the SEQ NRM atlases.

Q: Environment and natural resource management is traditionally aligned to catchment boundaries, yet the boundary adopted by the SEQ NRM Plan is the same as the statutory SEQ Regional Plan. What is the approach to deal with the cross-boundary issues?

A: As with most plans, there are many potential boundary-related issues: catchment boundaries, local government boundaries, NRM regional body boundaries, etc. The critical concern is that implementation and investment activities are coordinated to ensure outcomes are achieved. This will be a key element in the implementation approach for the plan.

Q: What happens if we don't meet the target, as several targets are inherently in conflict—for example, preserving high-value ecological regrowth on land required to achieve sustainable agriculture, or protecting remnant vegetation in key resource areas for extractive industries? What is the approach to deal with these inherent conflicts?

A: The targets have been listed in alphabetical order and no hierarchy of targets is implied. There are a large number of existing statutory processes that direct environmental impact assessment, planning, development and decision making (e.g. *Integrated Planning Act 1997*; Regional Council Planning Schemes; Master Plans; water resource plans under the *Water Act 2000*). Where statutory processes do not address conflicts, the Chief Executive Officers Committee for Natural Resource Management SEQ will be invited to assist with a negotiated outcome.

Q: How does the SEQ NRM Plan link to other strategies and existing local and catchment arrangements?

A: The plan is built to complement other strategies supporting the statutory SEQ Regional Plan. Examples include: the SEQ Outdoor Recreation Strategy, the SEQ Active Trails Strategy, and the SEQ Rural Futures Strategy. To ensure delivery of the targets at the property scale, the South East Queensland Regional Coordination Group (SEQRCG) has conducted a series of forums with organisations and people who work in natural resource management at the sub-regional, catchment and local scales. These forums were in nine different localities across the region: Sunshine Coast, Redlands and Southern Moreton Bay, Lockyer Valley and Somerset, Gold Coast, Brisbane Valley, West Brisbane and Ipswich, Southern Catchments and Scenic Rim, Redcliffe and Northern Moreton Bay, and Brisbane City. Participants at these forums indicated how natural resource managers worked together and suggested ideas to improve coordination in the future. SEQRCG aims to build upon these early conversations and continue the collaborative approach. This will help catalogue existing programs, investment and activities at the local and catchment scale and connect this to the regional level to provide information on implementation for the targets.

Q: What are the major assumptions underlying the SEQ NRM Plan?

A: Assumptions include:

- The SEQ NRM Plan is a strategic document for use at the more strategic regional level of planning.
- The SEQ NRM Plan is supported by existing action plans and legislation and does not seek to replace or create new institutional arrangements or strategies.
- The SEQ NRM Plan recognises the effort by people from all walks of life at a range of scales and is aimed at coordinating, connecting and aligning this effort and resourcing.
- The SEQ NRM Plan aims to coordinate investment in environment and natural resource management at all levels.
- The regional targets have been informed by the best available science and negotiated among all key collaborators. The targets are aimed to meet SMART criteria (specific, measurable, achievable, realistic and time-framed).

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