Auditor-General of Queensland

Report to Parliament No. 9 for 2010 Sustainable management of national parks and protected areas

A Performance Management Systems audit





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Auditor-General of Queensland

October 2010

The Honourable R J Mickel MP Speaker of the Legislative Assembly Parliament House BRISBANE QLD 4000

Dear Mr Speaker

This report is prepared under Part 3 Division 3 of the *Auditor-General Act 2009*, and is titled Sustainable management of national parks and protected areas. It is number nine in the series of Auditor-General Reports to Parliament for 2010.

In accordance with s.67 of the Act, would you please arrange for the report to be tabled in the Legislative Assembly.

Yours sincerely

Glenn Poole Auditor-General



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Executive summary

1.1 Audit overview

Ecosystems, landscapes, streams, rivers, and native flora and fauna within protected areas are seen as the foundation of conservation efforts to maintain Queensland's cultural and natural heritage. National parks are protected areas that provide valuable ecological services, recreational opportunities and are a source of inspiration and cultural identity.

Protected areas have been experiencing increasing pressures over the past three decades. These pressures include a greater number of visitors, a significant expansion of the protected area estate and heightened community expectations about the environment. The year 2010 is the International Year of Biodiversity. A United Nations report, released to coincide with this declaration, found that the five principal pressures directly driving biodiversity loss (habitat change, overexploitation, pollution, invasive alien species and climate change) are either constant or increasing in intensity.¹

The Department of Environment and Resource Management (DERM) is responsible for managing protected areas within Queensland, mainly through its Queensland Parks and Wildlife Services division. Its role includes planning for the protected area estate, undertaking conservation activities, and monitoring and reporting on its achievements as prescribed by the *Nature Conservation Act* 1992 (the Act).

To prepare for the challenges affecting the environment, and manage changing community expectations and increasing environmental pressures on the protected area estate, the department requires comprehensive, robust and integrated systems to ensure conservation of nature outcomes have been achieved efficiently and effectively.

The objective of this audit was to determine whether the department has adequate systems in place to ensure conservation of the state's natural and cultural heritage is managed efficiently and effectively.

1.2 Audit conclusion

Overall, I found that the department has systems in place to conserve the state's natural and cultural heritage and manage protected areas, although the systems are not applied consistently across the regions. I also identified improvement opportunities to ensure the sustainable management of national parks and protected areas.

The department delivers numerous services and activities that aim to minimise disturbance in protected areas as well as provide the necessary park and visitor infrastructure to meet conservation and community needs. These activities are carried out by dedicated officers.

United Nations, Global Biodiversity Outlook (GBO-3) (May 2010). Published by the United Nations Convention on Biodiversity and the United Nations Environment Program.

The department has operational systems in place to deliver these services, including thematic management strategies such as pest management and infrastructure plans, as well as a robust system of work activities schedules. Annual business plans are in place and assist in identifying and prioritising resources and strategies for the short to medium-term.

However, the department has developed park management plans for only 98 of the 576 (17 per cent) protected areas for which they are required. The Act requires the plans to identify the key natural and cultural values, and strategies for day-to-day and long-term management to protect these values. The Act also states that plans should be prepared as soon as practicable after the dedication of a protected area.

The preparation of statutory park management plans can be a lengthy process, as it includes significant stakeholder consultation. The department is currently reviewing the process for developing park management plans and advised that 12 plans are due to be finalised by the end of 2010 and a further 40 plans are being developed.

In my view, the absence of park management plans for most national parks and protected areas creates a risk for the department. Without approved park management plans, conservation activities undertaken in the protected area estate may be insufficient, or be inconsistently applied over the longer term. The relatively small number of completed park management plans reduces the department's capacity to measure its success and accurately report its findings to Parliament and other key stakeholders.

In addition, I found that the systems to formally monitor, evaluate, report and improve future planning are lacking. Some departmental units have developed processes to evaluate their successes, but this is not common across the department.

The department's performance measurement and reporting systems should have a greater focus on identified conservation of nature outcomes. The performance indicators used by the department concentrate on outputs or specific projects, and do not enable the department to demonstrate whether the conservation outcomes sought have been achieved. While the department is monitoring conservation outcomes in some instances, the current systems are not formalised, not applied consistently or not linked to formal review, evaluation and performance reporting systems.

The performance indicators, whether used to meet internal information needs or to report externally to Parliament and stakeholders, need reviewing to ensure they are relevant, appropriate and a fair representation of performance and achievement of outcomes.

Finally, improved integrity and integration of the data collected would enable the department to make more efficient use of the data in its evaluation, reporting and planning processes.

1.3 Key findings

1.3.1 Sustainable planning

To effectively prepare for and manage challenges impacting on the environment and the challenges flowing from increasing community expectations, the department needs a coordinated, integrated, long-term planning framework, which can produce conservation strategies and plans that are relevant, current and reflect better practice in conservation. A robust planning system aims to set clear, measurable goals, identify and set priorities, and determine the most effective strategies to address those priorities and allocate resources appropriately.

To ensure the sustainable management of protected areas, it is important that the department continues to improve its existing planning systems. These systems would benefit from further consolidation, coordination and formalisation of current practices.

Gaps in planning that result from the inconsistent application of a common planning system across the department can disrupt the flow from strategic to operational and park level planning.

Park management plans, which are vital planning documents for guiding management of individual protected areas and are a statutory requirement, are in place for only 98 of the 576 protected areas for which they are required under the Act. According to the Australia and New Zealand Environment and Conservation Council's (ANZECC's) Best Practice in Protected Area Management Planning Report, most park management plans require one to two years to develop.²

The department prepared park folios to record conservation values as a temporary measure where no park management plans have been developed. At the time of the audit there were 85 park folios. These mainly cover protected areas in the southern and western Queensland regions, thereby leaving a large percentage of national parks and protected areas in central and northern Queensland without statutory park management plans.

The relevance of the completed park management plans is diminished as those which have been completed are not systematically and formally reviewed within the statutory timeframes. Out of the 98 completed park management plans, only 11 are current. The others have lapsed or remain in draft form. A formal evaluation and review has not been undertaken on other planning documents, including park folios and some thematic management strategies, to ensure they remain current and relevant. The *Master Plan for Queensland's Parks System* (Master Plan), issued in 2001, has not been reviewed since its release, despite a requirement to do so every five years. At present, this plan stands alone and needs to be integrated into the overall governance and planning arrangements of the department.

The department has established clear linkages between the *DERM Strategic Plan 2009-13* and its *Operational Plan 2009-10*. The objectives in these documents are measurable and within a specified timeframe. Audit also noted linkages between the Annual Business Plans and the relevant subsidiary operational plans. However, the performance indicators were not well aligned between these plans.

While the Strategic Plan, Operational Plan, Annual Business Plans and thematic strategies support staff in efficiently delivering planned activities, they could be more effective in achieving long-term conservation objectives where a park management plan sets the strategic directions for the values of the protected area.

Audit also found that the Master Plan and *Service Delivery Statement 2010-11* for the Environment Service do not have clear and measurable objectives aligned to the statutory or strategic objectives. The objectives in park management plans developed before 2008 are broadly stated and could be more specific. A more specific definition of the desired conservation outcomes, linked to relevant and appropriate performance indicators, would assist the department in strengthening its planning, monitoring and evaluation systems.

Finally, audit found no evidence of a formal system that coordinates the various documents addressing the legislative requirement for an integrated and comprehensive conservation strategy for the whole of the state.³

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ANZECC Working Group on National Parks and Protected Area Management Benchmarking and Best Practice Program, Best Practice in Protected Area Management Planning, (May 2000).

³ Nature Conservation Act 1992, s.5.

1.3.2 Monitoring and reporting

To determine whether the department's planned outcomes have been met efficiently and effectively requires robust monitoring systems that gather comprehensive, accurate and relevant data in a timely manner, as well as an evaluation framework to assess the achievement of conservation outcomes. This requires well articulated, outcome focused objectives with relevant and appropriate performance indicators in place to drive the monitoring system.

Audit found that the department has systems in place to monitor operational outputs which provide management assurance over the number and types of service delivery activities undertaken. However, the department's systems would be significantly strengthened by the inclusion of outcome-based monitoring and reporting. For instance, the data entered into ParkInfo is output focussed and could be complemented by data on achievement of outcomes to highlight the effectiveness of the project.

Audit observed that monitoring was uncoordinated, with different units within the department monitoring different aspects of conservation activities. Several information systems gather vital data across the department to assist with the management and monitoring of protected areas. Most of these information systems are not integrated and the monitoring data across regions varies in quality, quantity and timeliness and is not validated.

The Ecological Assessment Unit (EAU), discussed in Section 3.3, has a well-developed approach to monitoring the outcomes of specific projects administered by their unit and regional offices. Audit found that the department could be missing opportunities to build on its achievements through the better use of the data gathered by the EAU to inform planning and report against conservation objectives.

The department relies on the data collected every second year through the Rapid Assessment Program (RAP) as a tool to inform their planning and evaluation. The review of the 2008 RAP results revealed the data is subjective, lacked integrity and was not complete. There is a risk that plans and evaluation of successes are inaccurate because of the quality of data available for decision making.

Audit found that the department was at the early stages of developing a management outcome evaluation system to assess whether the objectives set for specific protected areas are achieved efficiently and effectively. However, this system still needs to be formalised and audit identified areas for improvement to be considered by the department.

Performance monitoring and reporting arrangements are impacted by a lack of relevant and appropriate performance indicators to demonstrate success in achieving conservation of nature outcomes. For example, the objective for national parks and the protected estate in the department's Strategic Plan 2010-14 is 'Ecosystems are healthy, protected and bio-diverse.' ⁴ The performance indicators relating to this objective do not provide direct, explicit measures of the health, protection and biodiversity of the ecosystems.

⁴ Department of Environment and Resource Management Strategic Plan 2010-14.

1.4 Recommendations

It is recommended that the Department of Environment and Resource Management:

- 1. Formalise a comprehensive planning process for park management plans which will:
 - (a) provide an evaluation process to prioritise the timely completion of plans for those parks which were declared because of their significant conservation values
 - (b) establish a forward plan for the finalisation of the management plans for the balance of the protected areas.
- 2. In accordance with the *Nature Conservation Act 1992*, formally and regularly review park management plans, and ensure that the associated thematic strategies remain current and relevant.
- 3. Ensure all business units and regions undertake a consistent approach to planning aligned to the better practice principles outlined in the IUCN guidelines.⁵
- 4. Establish a formal system that coordinates the various documents addressing the statutory requirement for an integrated and comprehensive conservation strategy for the whole of the state, including an examination of the options to be included in a new Master Plan.
- 5. Establish a system to validate and improve the integrity, accuracy and quality of the data collected and ensure a reliable and consistent approach to monitoring of operations.
- Formalise a monitoring and evaluation framework, such as the IUCN's Management
 Effectiveness Evaluation framework, and apply this process consistently to
 ensure adequate evaluation is undertaken to inform the future departmental
 direction and actions.
- 7. Develop performance indicators that are relevant and appropriate and which are capable of fairly representing the agency's achievements in managing national parks and protected areas in line with the objective of the *Nature Conservation Act* 1992 and departmental strategic planning objectives.

-

International Union for Conservation of Nature (IUCN) – World Commission on Protected Areas (WCPA) Best Practice Protected Areas Guidelines.

1.5 Departmental response

The Director-General, Department of Environment and Resource Management provided the following response on 14 September 2010:

The audit has provided a good opportunity to review the department's effectiveness and approach to conserving the State's natural and cultural heritage. The report provides valuable information which will assist the Department of Environment and Resource Management (DERM) to consider and refine its approach to managing the protected area estate in Queensland.

I agree with your conclusion that overall the department has systems in place to conserve the state's natural and cultural heritage and manage protected areas, although not yet consistently applied across all regions. I note the range of findings which at a high level reflect an overall trend of improvement within the Queensland Parks and Wildlife Service (QPWS) in pursuit of nature conservation outcomes for Queensland. I would like to acknowledge the efforts of our skilled and dedicated staff in delivering numerous services and activities to meet conservation and community needs.

I acknowledge the improvement opportunities and recommendations in the report, several of which QPWS are already progressing, and a response to each is provided below.

In relation to recommendations one and two, DERM acknowledges the need for developing Park Management Plans as required by the Nature Conservation Act 1992 (NCA 1992), and findings that plans have not been completed for all parks with a number in draft form for an extended period of time. As stated in the report, decisions have to be made on how to prioritise resources and the department (and its predecessor agencies) have delivered resourcing towards frontline services in the National Park estate. While this prioritisation is consistent with the department's strategic objectives under the legislation it is accepted that formal compliance with statutory planning requirements needs to be addressed.

The preparation of park management plans has been influenced by the time and cost involved in undertaking the planning process and the department is considering opportunities to streamline its approach while still engaging stakeholders meaningfully. In the park management plans completed to date the department has undertaken the fullest possible planning process involving extensive information gathering and consultation consistent with legislative requirements. It is estimated that if this approach is adopted in relation to the outstanding protected areas this would require a commitment of 30 years at a cost of approximately \$60 million and the use of 600 full time equivalent staff years effort.

Clearly such an approach would not provide the best outcome for the management of the estate nor would it be necessary in order to acquit the key requirements for planning which as noted in your report includes "improved management of the protected area, improved use of financial and staff resources, increased accountability and communication."

While these park management plans have not yet been completed, the strategic objectives and management principles described in the NCA 1992 nevertheless continue to provide overall guidance and direction for protected area management. In this context QPWS has continued to deliver a comprehensive program of fire and pest management, as well as establishing and maintaining facilities to ensure visitor access is confined to appropriate areas within the estate to ensure impacts on ecosystems are minimised. As the audit has found, these thematic strategies are in place in most regions, are well implemented and sufficient in detail for staff to gain a clear understanding of what QPWS is trying to achieve overall.

While I am confident the work programs of QPWS achieve a similar intent to outcomes realised through park management planning, DERM is committed to a structured and practical approach to resolving Park Management Plans for all protected areas. There are currently 149 protected areas for which park management plans are in development, broadly prioritised on the basis of parks' natural and cultural values and threats. The department will review its forward schedule to expedite its compliance with planning obligations.

In relation to recommendation three, I note the findings relating to business plans being established with good links to subsidiary operational plans. QPWS will build on its good practice examples of regional and business operational plans to ensure a greater level of alignment, integration and consistency.

In relation to recommendation four, an examination of options will be included in the review of the Master Plan, noting that QPWS is not the only division in DERM tasked with NCA 1992 related responsibilities. While I consider the department's strategic planning and performance framework comprises a formal system addressing statutory requirements of the NCA 1992, as discussed through the course of the audit DERM is developing a Queensland Biodiversity Strategy. The (currently draft) biodiversity strategy is a Queensland Government election commitment which, having been further developed since the audit, will deliver a comprehensive overarching strategy to achieve and assess nature conservation outcomes. I have asked that a copy of the draft strategy be provided to the QAO for your information.

In relation to recommendation five, the benefits of integrating QPWS data systems are being recognised through the development of an information system ParkInfo version 2. This system will enhance the coordination of relevant monitoring information to better inform planning and decision making. Following the formation of DERM in 2009, QPWS has benefited from increased network capability - particularly in regional locations - which will assist timely input and use of data. Future development of ParkInfo will consider the inclusion of Wildnet as identified by the QAO.

In relation to recommendation six, the QPWS is developing an enhanced evaluation framework to better understand the effectiveness of our protected area management activities. The framework will build on the well established systems in place to monitor outputs, and good practice examples such as those of the Ecological Assessment Unit.

In relation to recommendation seven, while I am confident that QPWS programs contribute to the nature conservation outcomes by maintaining and enhancing the protected area estate it is accepted that existing performance measures are output focussed. This reflects QPWS's ecosystem approach where we aim to increase the size of the estate and manage it effectively to provide the greatest opportunity to maintain healthy biodiversity. The successful completion of planned activities and outputs through our thematic strategies supports the achievement of overall government outcomes.

Recognising best practice program management there are substantive reasons why these output performance measures tend to be used. Evaluating nature conservation outcomes and effectiveness is a significant challenge across Australian and international jurisdictions responsible for protected area management. Outcomes will be subject to many external variables including limitations to control of activities off-park; the effects of climatic variation and climate change; and natural disasters such as fire, cyclones and floods. It may also be difficult to apply outcome focussed quarterly and annual performance measures because the timeframe for observing measurable change may extend over several years. Nevertheless the department will continue to review its performance measures to inform future versions of the agency strategic plan, service delivery statements and QPWS master and business plans.

2 Audit outline

Summary

Background

An audit was undertaken to determine whether the Department of Environment and Resource Management has adequate systems in place to ensure the conservation of the state's natural and cultural heritage is managed efficiently and effectively.

Key points

The audit covered a selection of national parks and protected areas across the state. It focussed on planning, implementation of estate management and conservation activities, and performance monitoring, evaluation and reporting. In particular the audit methodology involved:

- A review of departmental strategic documents, regional business and operational plans.
- An examination of the systems and processes in place to support estate management and conservation activities in the Queensland Parks and Wildlife Service estate.
- Interviews with key staff in regard to planning, performance management and operational systems.

2.1 Background

National parks and protected areas are vital to helping preserve natural and cultural assets. They preserve habitats for a wide range of native plants and wildlife, maintain biodiversity and protect endangered species. They are a key strategy for biodiversity conservation as set out in the Convention on Biodiversity, to which Australia is a signatory.⁶

The declaration of a protected area is the first step in achieving conservation outcomes. However, this alone is not sufficient to ensure that the natural and cultural heritage is conserved. The impact on the heritage values resulting from disturbance needs to be sustainably managed to ensure these values are preserved for future generations.

The agencies responsible for the management of national parks and protected areas have undergone some restructures in recent years. In 1998 the Queensland Parks and Wildlife Services (QPWS) was merged into the Environmental Protection Authority (EPA). The March 2009 machinery of government changes resulted in the then EPA and the former Department of Natural Resources and Water amalgamating to form the Department of Environment and Resource Management (the department).

Under the *Nature Conservation Act 1992* (the Act), the department is responsible for the protection and management of the protected areas estate while allowing for its ecologically sustainable use. The department meets its legislative mandate through a range of strategies including the dedication and declaration of protected areas, the management of the protected areas estate and the protection of native wildlife and habitat.

2.2 Departmental overview

The department delivers its conservation and environmental services through QPWS management of the parks and protected areas estate. This estate at 21 July 2010 comprised 576 protected areas including 315 national parks, 216 conservation parks and 45 resources reserves, as defined in the Act. These figures do not include marine protected areas managed by QPWS.

The protected areas under QPWS management increased by 3,607,075 hectares (80 per cent) during the period from 1997 to June 2010. Over the same period, the number of rangers managing these protected areas increased by 284 to 763. On 22 July 2010 it was announced by the Minister that ranger positions will be increased to 822 in the 2010-11 year. Detailed numbers are provided in Figure 2.1.

The organisational structure of QPWS is outlined in the organisational chart in Figure 2.2.

The audit focused on branches with primary responsibility for the conservation of nature. The Conservation Strategy and Planning Branch provides technical and professional services to support the Terrestrial and Marine branches and regions where there is a need for statewide standards or priority strategic actions. The Terrestrial Branch has responsibility for all non-marine protected areas and forest management. Its core function is to manage the QPWS estate to enhance its natural condition.

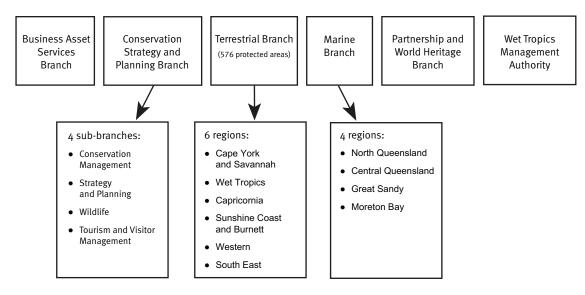
⁶ Convention on Biological Diversity – www.cbd.int.

Figure 2.1 – QPWS Estate Area and Ranger Numbers

Category (hectares)	1997	2000	2003	2006	2009	2010
National park	6,471,088	6,675,829	6,709,768	7,425,155	7,959,278	8,138,792
Conservation park	28,742	32,930	42,299	64,893	73,253	66,883
Resources reserve	321,842	350,719	347,857	348,104	366,667	368,662
Nature refuge *	2,322	13,518	61,352	461,659	750,988	1,711,271
Coordinated conservation area *	1,170	1,170	1,170	2,121	2,121	2,121
Forest reserve	0	0	0	0	144,510	143,891
Total protected area	6,825,164	7,074,166	7,162,627	8,301,932	9,296,817	10,432,239
State timber forests and other reserves **	0	4,554,676	4,346,702	4,198,808	3,698,139	3,592,545
Total	6,825,164	11,628,842	11,509,329	12,500,740	12,994,956	14,024,165
Aggregated QPWS managed areas	6,821,672	11,614,154	11,446,807	12,036,960	12,241,847	12,310,773
Ranger establishment numbers***	479	504	684	695	793	763
Hectares per ranger	14,241	23,044	16,735	17,319	15,437	16,135

^{*} QPWS does not manage the Nature Refuge and Coordinated Conservation Area categories (private land). This category has been excluded from above calculations.

Figure 2.2 – QPWS organisational chart



^{**} Includes forest reserve, State forest, timber reserve and other which includes department and official purposes reserve, environmental reserve, reserve for environmental purposes, other reserves, scientific reserve, freehold land EPA.

^{***} Full time equivalent positions.

2.3 Audit objective

The objective of this audit was to determine whether the department has adequate systems in place to ensure the conservation of the state's natural and cultural heritage is managed efficiently and effectively.

Specifically, the audit assessed whether adequate systems are in place to:

- ensure comprehensive planning is undertaken for the protected areas estate
- ensure the implementation of the estate management and conservation activities is carried out efficiently and effectively
- measure, monitor, evaluate and report on estate management and conservation activities.

2.4 Audit scope

Entity subject to audit 2.4.1

The department was subject to the audit, with a focus on the responsibilities administered by the QPWS. A sample of terrestrial protected areas and national parks from the QPWS estate was selected for field visits. The sample for field visits was chosen in consultation with the department, and included a mix of protected areas with different characteristics.

A sample of departmental performance indicators relating to the sustainable management of national parks and protected areas was selected and audited against the criteria of relevance, appropriateness and fair representation in performance reporting.

242 Exclusions from audit scope

The following areas of conservation or management of protected areas were excluded from the scope of this audit:

- marine parks
- commercial activities in parks, including forestry (as controlled by Forestry Plantations Queensland)
- built cultural heritage
- wild rivers
- conservation of a particular species
- strategic planning and analysis for the purpose of identifying future protected areas.

2.4.2 Audit fieldwork

Audit fieldwork was conducted between March and May 2010. Four regional offices and six sub-regional offices were visited and 11 protected areas were selected for audit (shown in Figure 2.3).

Figure 2.3 – Audit fieldwork

Regions	Sub-regions	Location of audited protected areas
Northern (Wet Tropics) Cairns Regional Office	Cairns Sub-regional Office Innisfail Sub-regional Office	Dinden National Park Barron Gorge National Park Wooroonooran National Park
Southern The Gap Regional Office	The Gap Sub-regional Office Burleigh Sub-regional Office	Tamborine National Park D'Aguilar National Park Springbrook National Park Lamington National Park
Central Mackay Regional Office Airlie Beach Regional Office	Gladstone Sub-regional Office Rockhampton Sub-regional Office	Curtis Island National Park Byfield National Park Eungella National Park Whitsunday Island National Park

In addition, six remote protected areas were subject to a desk review. These were: Simpson Desert National Park, Idalia National Park, Camooweal Caves National Park, Boodjamulla (Lawn Hill) National Park, Mungkan Kandju National Park and Staaten River National Park.

2.5 Audit procedures

To gain an understanding of the conservation of protected areas, context and topic, audit reviewed relevant literature and audit reports, including publications from Australian and international jurisdictions.

The audit team conducted the following procedures:

- a review of the department's strategic documents, such as Strategic and Business Plans,
 Service Delivery Statements and Annual Reports
- a review of the relevant policy documents, procedures and guidelines
- an examination of the governance and management systems to coordinate planning, operations, monitoring and reporting across the various levels of the department
- an assessment of the systems and processes for planning and implementing estate management activities and nature conservation activities in the QPWS protected areas estate
- a review of the systems supporting the implementation of estate management
- an examination of the type of data collected and data integrity, including performance information for estate management and operational planning
- · a review of the monitoring and reporting mechanisms.

Audit held a number of interviews with officers from the department's corporate office, regional and sub-regional offices, as well as operational staff in charge of the selected protected areas.

2.6 PMS audit approach

A Performance Management Systems (PMS) audit is an independent examination which includes determining whether an entity or part of an entity's activities have performance management systems in place to enable management to assess whether its objectives are being achieved economically, efficiently and effectively.

The legislative basis for this audit is the Auditor-General Act 2009. This Act prescribes that the Auditor-General may conduct an audit in the way the Auditor-General considers appropriate. While the Auditor-General takes note of the entity's perspective, the scope of a public sector audit is at the sole discretion of the Auditor-General.

The Auditor-General applies the standards of the Auditing and Assurance Standards Board to audits in the Queensland public sector to the extent that they are not inconsistent with the requirements of the Act and other legislation that prescribes the Auditor-General's work.

While a PMS audit will not review or comment on government policy, it will have regard to any relevant prescribed requirements. It may also extend to include a focus on the entity's performance indicators and whether, in the Auditor-General's opinion, the performance measures are relevant, appropriate and fairly represent the entity's performance.

The intent of a PMS audit is to provide independent assurance to Parliament, and to act as a catalyst for adding value to the quality of public administration by assisting entities in the discharge of their governance obligations.

A PMS audit has a focus on ascertaining whether systems and controls used by management to monitor and measure performance, assist the entity in meeting its stewardship responsibilities.

3 | Planning for sustainability

Summary

Background

This section outlines the planning requirements for the sustainable management of protected areas and presents the findings relating to plans developed at various levels in the department.

Key findings

- Park management plans are in place for only 98 of the 576 protected areas for which they are
 required. It is not clear whether these plans are for the most significant parks. The process to
 develop park management plans as outlined in the *Nature Conservation Act 1992* can be
 complex and lengthy.
- Thematic management strategies are in place and appear well implemented although they
 are not systematically reviewed through a formal monitoring process to maintain currency
 and relevance.
- Conservation Initiatives cater for more specific conservation projects and are undertaken with consultation of department experts, academia, and the scientific community.
- Annual Business Plans are in place and demonstrated good links with the subsidiary Operational Plans.
- The Master Plan has not been updated since it was issued in 2001, despite a requirement for a review and process evaluation every five years.
- The department's Operational Plan 2009-10 is aligned with the Strategic Plan 2009-13 and outlines actions, initiatives and performance indicators for each strategy.
- The Act requires an integrated and comprehensive conservation strategy for the whole of the state. The department has not established a formal system that coordinates the various documents addressing this legislative requirement.

3.1 Why plan?

To effectively prepare for, and manage, challenges affecting the environment and changing community expectations, the department requires an effective, integrated, long-term planning framework, which can produce conservation strategies and plans that are relevant, current and reflect better practices.

As available resources are limited, decisions have to be made on how to allocate scarce resources to produce the desired outcomes in the most efficient and effective manner. A robust planning process aims to set clear, measurable goals, identify and prioritise current needs, determine the most effective strategies to address those priorities and allocate resources appropriately.

Planning should also identify performance indicators that are relevant, appropriate and fairly represent performance. These indicators aim to measure the success in achieving the identified goals and desired outcomes. This is discussed in Section 4 of this report.

The department must comply with legislative requirements for planning. The *Nature Conservation Act 1992* (the Act), provides the main legislative instrument for the proclamation and management of protected areas and national parks in Queensland. The Act outlines Parliament's requirements for the achievement of the conservation of nature through an integrated and comprehensive conservation strategy for the whole of the state.⁷

Figure 3.1 – Overview of planning in the Department of Environment and Resource Management and QPWS division

Government	Toward Q2 – Tomorrow's Queensland, Master Plan for Queensland's Parks System
DERM	Strategic Plan
corporate	Agency Operational Plan
QPWS	QPWS Program Plan
division	QPWS Business Plan (annual) for each branch
Region	Regional Business Plan
Protected area (park) level	Park Management Plan (statutory requirement) Park Management Statement Strategies

⁷ Nature Conservation Act 1992, s.5.

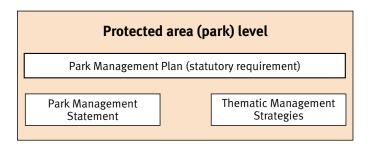
3.2 Planning for specific protected areas

Having a sound understanding of the natural and cultural values of the protected area, its current state, and risks and threats to its sustainability, is central to effective planning.

The main types of planning documents prepared for protected areas are:

- management plans which are a statutory requirement ⁸
- thematic management strategies which include fire, pest and visitor management strategies and park management statements.

Figure 3.2 - Planning inputs for specific protected areas



3.2.1 Park management plans

Findings

A park management plan is a key planning document which sets out the management approach and goals for a specific protected area over a given period of time. The Act requires the plans to identify the key natural and cultural values, and strategies for day-to-day and long-term management to protect those values. According to the International Union for Conservation of Nature (IUCN) Best Practice Protected Areas Guidelines No.10, a park management plan is the prime document from which other plans should flow, including a rolling up of park values, objectives, strategies, risks and performance indicators for measuring the conservation of nature and other relevant outcomes.

The Act states that the Minister, as soon as practicable after the dedication of a protected area, must prepare a management plan for the area. ⁹ The Act also prescribes the form and content of the plan and the statutory process to be followed in its preparation. A park management plan has a ten year life, with a formal five year mid-review point. While the Act does not define 'as soon as practicable', the industry standard, indicates that a management plan can be finalised within one to two years. ¹⁰

⁹ Nature Conservation Act 1992, s.111.

⁸ Nature Conservation Act 1992, s.111.

¹⁰ ANZECC Working Group on National Parks and Protected Area Management Benchmarking and Best Practice Program, Best Practice in Protected Area Management Planning, (May 2000).

As noted in the Auditor-General's Report No. 6 for 2009 *Providing the Information Required to Make Good Regulation,* an important part of the regulatory process, which would include the drafting of a park management plan, involves public consultation. With community expectations increasing, this process has raised significant delays in finalising management plans. While this can be seen as a block to achieving finalisation of the legislative process, often the benefits of community buy-in to the plan far outweigh the extended timeframe.

Research shows the process to develop park management plans can be complex and lengthy, requiring one to two years to develop. ¹¹ Other complexities, such as community and stakeholder consultation adds to the time taken to secure an agreement.

The IUCN states the success of a plan is largely dependent on the support of the community:

'If there is no general Management Plan, preservation, development and use activities in a park will occur in a haphazard basis, often in response to political pressures with little consideration as to the implications for the future. The result is likely to be lost opportunities and irreversible damage to park resources and values.' 12

According to the IUCN, a good management planning process which has the support of staff and local communities, provides the following benefits:

- · improved management of the protected area
- improved use of financial and staff resources
- increased accountability
- improved communication.¹³

Figure 3.3 shows the current status of park management plans. However, the department could not provide details of whether the 98 plans in place related to outstanding, significant, high or moderate risk park categories. With over 16 different categories which could apply to each national park or protected area, many variables impact on establishing a standard method for prioritising which park should have a plan prepared. The department advised that some preliminary work has been undertaken and they have been working towards creating a risk matrix that will help identify which protected areas require a park management plan as a priority.

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Category	Required	ln p	Not in place	
		Current	Due for review	
National Park	315	10	63	242
Conservation Park	216	0	22	194
Resources Reserve	45	1	2	42
Total	576	11	**87	478

Data supplied by the department and current as at 21 July 2010

^{**} There are 81 final management plans incorporating 'aggregate' plans covering some multiple reserves

ANZECC Working Group on National Parks and Protected Area Management Benchmarking and Best Practice Program, Best Practice in Protected Area Management Planning, (May 2000).

¹² IUCN Guidelines for Management Planning of Protected Areas (Thomas & Middleton) 2003, page 9.

¹³ IUCN Guidelines for Management Planning of Protected Areas (Thomas & Middleton) 2003, pages 10-11.

Audit was advised that due to a change in departmental focus, together with the transfer of the forestry estate into the protected areas estate, no park management plans were finalised from 2001 to 2008. The challenge for the department to finalise park management plans for all parks in accordance with the Act will be greater following the government's aim to increase land held as national parks to 12.9 million hectares by 2020.¹⁴

In addition, the Act requires the Minister to review the operation of each management plan not later than 10 years after its approval.¹⁵ Audit was informed that park management plans in place prior to 2001 have not been formally reviewed, or have only recently been updated for currency. Audit also noted that a number of park management plans remain in draft form several years after being developed.

A dedicated planning unit exists for the development of park management plans and has the necessary skills to undertake this critical process. The preparation of statutory park management plans can be a lengthy process, as outlined above. The planning unit have identified that most time is taken in consultation with stakeholders. This impacts on how soon after the dedication of a protected area a plan can be completed. Most park management plans take on average one to two years to develop. Audit was informed that in one instance a park management plan took 11 years to finalise. Audit found that the department has adequate policies and procedures to guide the development of park management plans.

In 2005 the Natural Resource Management Ministerial Council, consisting of Australian and New Zealand Government Ministers, set the following direction to all jurisdictions: 'Management plans or, where this is not possible, statements of management intent, to be in place for all existing NRS reserves and for any new reserves within three years of establishment unless Native Title Act considerations preclude this.' ¹⁶ In 2007, an Australian Senate inquiry into the National Reserve System found that although the directions statement issued by the Natural Resource Management Ministerial Council laid the foundations and set out directives for a more consistent reserve planning and management system, it seemed that more work still needed to be done in State jurisdictions to achieve the aims of the statement. ¹⁷

The department informed audit that it is currently reviewing the process for developing park management plans, and has introduced aggregate planning where an existing management plan is in place and a community engagement risk matrix to assist in making this process more efficient. The department's increased planning activities aim to deliver 12 finalised park management plans by the end of 2010 and a further 40 plans are being developed. However, the relevance of the completed park management plans is diminished as these are not systematically and formally reviewed within the statutory timeframes. Out of the 98 completed park management plans, only 11 are current. The others have lapsed or remain in draft form.

¹⁴ Queensland Government, *Toward Q2: Tomorrow's Queensland*, September 2008, page 24.

¹⁵ Nature Conservation Act 1992, s.125.

Natural Resource Management Ministerial Council, Directions for the National Reserve System – A Partnership Approach, Department of the Environment and Heritage, 2005, page 51.

Standing Committee on Environment, Communication, Information Technology and the Arts, Conserving Australia – Australia's national parks, conservation reserves and marine protected areas, April 2007, page 170.

Audit found that in the absence of park management plans the department has developed a park folios system that guides rangers and field staff. The park folio system aims to provide a brief statement of the purpose of the protected area and outlines the management directions for the various aspects of conservation management. The system intends to allow comparisons to be made over time as to the status of the various conservation values, threats and opportunities. At the time of the audit, there were 85 park folios with another 23 in development. Most of these park folios were implemented in the southern and western regions. Park folios do provide valuable preliminary information necessary for development of the park management plan. The department has acknowledged that the folio system is not intended to replace the statutory management plans.

While the department continually collates quantitative and qualitative data to update the park folios, audit was advised that not all folios have been formally and systematically reviewed.

Conclusion

Park management plans provide many benefits to protected areas and those who rely on their good management. However, there are only a small percentage of protected areas with management plans in place. Without approved park management plans, there is a risk that conservation activities undertaken in the protected areas may be inadequate or inconsistent in ensuring long-term conservation outcomes.

3.2.2 Thematic management strategies

Findings

Thematic management strategies are plans for pest management, fire burns, the building and maintenance of infrastructure and recreation assets, visitor plans and responses to emergencies. Thematic management strategies assist the operational staff in conducting their daily activities. The effectiveness of these strategies is enhanced when they can be tailored to the conditions specific to the individual protected area and aligned with the park management plan or park folio for the area.

The successful implementation of thematic strategies to achieve conservation of nature outcomes through operational activities relies heavily on the dedication and experience of Queensland Parks and Wildlife Service (QPWS) officers. Thematic strategies, while operational in nature, are still sufficient in detail for staff to gain a clear understanding of what QPWS is trying to achieve overall.

Audit found that thematic management strategies are in place and well implemented in most regions. Audit observed that operational staff use these strategies to carry out their duties. While these strategies incorporated input from operational staff, departmental research officers and experts, some of these documents have not been formally reviewed and evaluated for a number of years to ensure they are still relevant to the conservation of nature objective.

Audit noted that there are opportunities to customise the departmental policies and procedures within a set framework to suit the unique characteristics of their protected areas and maximise the effectiveness of the thematic management strategies. Audit found that a robust system of work activity schedules is in place in all regions and guides the activities to be completed for the year. Sufficient flexibility is built into the work schedules to deal with natural disasters or other emergencies which take precedence over planned activities. The work activity schedules are aligned with the Business Unit Operational Plans discussed in Section 3.4 of this report.

Conclusion

A formal review and evaluation of the thematic strategies has not been systematically undertaken on all documents to ensure they remain current and relevant. Park management plans need to be in place to set long-term strategic directions for the protected areas' values and include effective strategies for fire and pests.

3.3 Planning for specific conservation priorities

Thematic management strategies drive the main body of activities undertaken by the department regarding the conservation of nature. The Conservation Strategy and Planning (CSP) branch and its various units, plan for, monitor and evaluate the conservation of nature for specific conservation priorities. The CSP, through its Ecological Assessment Unit (EAU), guide and carry out projects that are specific to the conservation of nature. The Unit works closely with departmental counterparts including the Rare and Threatened Species Unit, the Queensland Herbarium along with the scientific community and academia to develop and prioritise projects.

Findings

The conservation initiatives undertaken and driven by the EAU are soundly based projects that achieve the conservation of nature objective of the Act. The unit demonstrates its achievement through a formal monitoring and reporting process discussed further in Section 4 of this report. The internal service and interaction provided by the EAU to regional offices and national park field staff is vital.

Resources for protected area management need to be allocated based on priorities to maximise efficient and effective outcomes for natural and cultural conservation. Audit found that the department could not always clearly demonstrate how it prioritised its resources through various plans and systems.

Statewide conservation projects are prioritised through consideration of strategic plans, divisional business plans, various monitoring data and knowledge of information gaps. Audit was advised that a Terrestrial Monitoring Discussion Group has recently been established and will provide input regarding conservation priorities.

Some regions have clearly defined, documented and communicated criteria they use to prioritise risk and ensure available resources are assigned accordingly for activities in the thematic management plans. Where offices have combined terrestrial and marine roles, audit observed that these regions have also ranked their strategic priorities.

Operational staff rely on many documents to carry out their duties, including park management plans, statement of pest management intent, fire strategy, infrastructure and recreation plan, and visitor management plan. However, with the significant absence of park management plans to inform priorities, resourcing is mainly based on statewide priorities for programmes and projects. Audit found that some regions do not clearly document and communicate the risk criteria they use to assess and prioritise resource allocation to operational activities.

Case Study - Conservation Initiative Projects

Conservation Initiative (CI) projects aim to deliver focused and prioritised monitoring or operational actions aimed at conserving a natural or cultural value in a protected area.

QPWS management, in consultation with regions, recognised the need for a coordinated statewide approach to conservation-focused monitoring and assessment projects in 2006-07. The EAU was established and CI projects were introduced to focus on addressing significant knowledge gaps, with implications for park management, across a large area of protected estate. Most of these CI projects are coordinated by the EAU in collaboration with QPWS regional staff.

Some of the ongoing CI projects include:

- improving understanding of various ecosystems in relation to fire management practices
- managing introduced species to improve conservation outcomes
- monitoring climate change impacts on flora and fauna
- monitoring various habitats to determine impact on threatened fauna

Some of the many benefits that these CI projects and the EAU bring to the overall conservation of protected areas are:

- · development of systems to understand the condition of the protected areas, leading to sound planning of what is needed and how to best get there
- thorough monitoring of the protected area over time, leading to better trend analysis
- · monitoring of both outputs and outcomes, leading to a comprehensive evaluation of the area
- more reporting against the success of achieving outcomes
- Better integration of monitoring, evaluation and reporting systems

These CI projects and EAU contribute to an effective evaluation framework to be adopted by the department, discussed later in Section 4 of this report. Consistent application of this system throughout the department could result in a robust process to evaluate management effectiveness and inform park management planning.

Conclusion

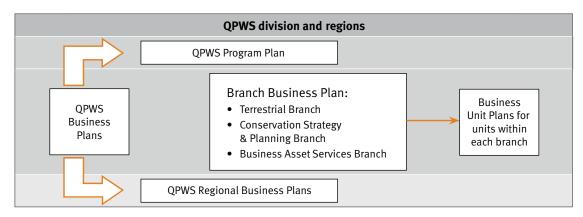
The EAU delivers conservation initiatives that contribute to the protection of natural and cultural assets. However the successes of this unit are not well recognised by the department and stakeholders, due mainly to a lack of communication. The department could be missing opportunities to build on its achievements by not better using the EAU's research, and results of its conservation initiatives.

3.4 Planning for the protected areas estate

A range of plans are developed within QPWS that set the overall direction and structure of its activities. These include:

- QPWS Program Plan 2009-12
- Branch Business Plans
- · Regional Business Plans
- Business Units Operational Plans.

Figure 3.4 – Planning inputs for the protected areas estate



3.4.1 QPWS Program Plan 2009-12 and subsidiary plans

Findings

The three-year Program Plan, QPWS Program Plan 2009-12, declares the vision and mission of QPWS and outlines six strategies to achieve them. It sets broad strategic directions and actions, indicates lead and support roles of the various branches for programs and guides overall direction of business plans.

Business Plans are prepared annually for the various branches within QPWS such as the CSP branch and the Terrestrial branch. Business Plans include details of both strategic directions and operational activities to be undertaken by the units under the branch administration, such as the EAU, or regional offices for the Terrestrial branch.

From branch Business Plans, Regional and Unit Business Plans are developed and identify short-term actions and projects for 2009-10, together with performance indicators, timeframes and responsibilities associated with implementing the QPWS Program Plan or relevant thematic management strategy. The regional and unit Business Plans act as a vertical link between the strategic directions set by the department and QPWS based on geographical boundaries. The Business Plans for the branches cut across the regions and focus on a particular aspect of conservation activities forming a matrix of interrelated and supported plans.

Most of the plans reviewed by audit demonstrated good links between regional Business Plans and the relevant subsidiary business units Operational Plans. However, audit observed some gaps in the regional Business Plans as there were a few strategies with no associated actions for implementation.

The Business Plan for the CSP Branch cuts across regions and is focused on developing conservation initiatives based on priorities and risks. It also identifies the various technical services to be provided to the regions, such as advice on planned burns or pest eradication. Specific monitoring programs undertaken by the CSP Branch are discussed in Section 4 of this report.

The Business Asset and Services Business Plan includes the infrastructure plan for the protected areas estate and provides input into regional plans.

The findings relating to the performance indicators identified in Business and Operational Plans are discussed in Section 4 of this report.

Conclusion

Annual Business Plans provide a process to clearly identify and prioritise resources and strategies. Audit found Annual Business Plans are in place and demonstrated good links with the relevant subsidiary business units' Operational Plans. However, there are some gaps in the regional Business Plans.

3.4.2 Master Plan for Queensland's Parks System 2001

Findings

In 2001 the government issued the *Master Plan for Queensland's Parks System*. The Master Plan outlines the direction for the management of Queensland's protected areas over the next 20 years. It provides an overview of the protected areas system by explaining what they are and why they are important. The Master Plan identifies 12 principles for park management classified under four distinct dimensions, one of which is protecting natural and cultural heritage. It also lists 125 strategic actions that need to be implemented over the next 20 years to achieve the desired future outcomes. The plan has a long-term strategic value extending over a 20 year period, however only short to mid-term strategies were identified in the existing planning documents.

The Master Plan states that it:

'... will be reviewed every five years, with public participation to evaluate the progress towards the stated principles and aims, and to consider new issues and circumstances. At each five-year review, the Plan will be refined to ensure it remains a dynamic blueprint, responsive to emerging issues while providing a firm and clear overall direction, rolling into the future.' ¹⁸

Despite the review requirement, audit found the Master Plan had not been reviewed within the established timeframe of every five years, and was now more than four years overdue for review. Also the Master Plan has not been updated or evaluated to ensure its relevance to emerging conservation risks and issues. Audit found no evidence of monitoring or evaluation of the implementation of the 125 strategic actions included in the Master Plan. The department could consider reviewing the Master Plan in line with the statutory requirement for an integrated comprehensive conservation strategy for the whole of the state.

The department advised that it planned to review the Master Plan to re-set the direction for protected areas into the future. However, no details about the scope and milestones of this review were available at the time of the audit.

The findings relating to setting clear and measurable objectives are discussed in Section 3.6 of this report.

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¹⁸ Queensland Government, *Master Plan for Queensland's Parks Systems*, 2001, page 4.

Conclusion

The Master Plan is not integrated with the departmental planning framework and governance arrangements. Audit noted that the plan was not referred to in key departmental documents and had not been reviewed within the established timeframe of every five years. While the department indicated an undertaking to redevelop the plan, no supporting evidence was provided that outlined how this process will be carried out or how the plan would interact with existing documents.

3.5 Corporate planning

The government's Performance Management Framework and Agency Planning Requirements oblige each department to prepare a Strategic Plan.¹⁹ The department also produces an annual Operational Plan cascading down from the Strategic Plan.

Section 5 of the Act states the conservation of nature objective is to be achieved by an integrated and comprehensive conservation strategy for the whole of the state.

3.5.1 Strategic plan and operational plan

Findings

A strategic plan is used by an agency to set its direction (vision) and align the agency with the government's objectives for the community (*Toward Q2: Tomorrow's Queensland*). It provides objectives and strategies for the agency, and details performance indicators and the timeframe for their achievement.

The department's business is vast and varied. It provides a wide range of services to the community including the management of protected areas undertaken by QPWS. The department's key areas of responsibility include:

- · meeting the challenge of climate change
- protecting and conserving Queensland's natural environment and cultural heritage
- · managing land, water and vegetation resources responsibly
- securing water for Queensland's future.

Audit found that the *DERM Strategic Plan 2010-14* has a broad coverage given the extent of the department's statutory responsibilities and operations and defines high level objectives for the entire department.

Analysis of the sections relevant to national parks and protected areas found that, due to the broad nature of the plan, it is difficult to determine alignment with the statutory objectives of the Act. In addition there is limited alignment of the strategic plan with relevant services funded in the *Service Delivery Statements 2010-11* for the department. This can inhibit acquitting performance requirements to Parliament's expectations in the department's Annual Report, and diminish accountability and decision making in relation to appropriation of funding to achieving conservation of nature outcomes.

⁹ Queensland Government Performance Management Framework May 2009 and Agency Planning Requirements April 2010 [Published by the Department of Premier and Cabinet].

Audit reviewed the DERM Operational Plan 2009-10 as the 2010-11 plan was not available at the time of the audit. The 2009 Operational Plan cascades down from the Strategic Plan in the department's planning framework. It breaks down each strategy from the Strategic Plan into actions, initiatives and performance indicators. The Operational Plan also identifies risks and mitigating strategies for each of the services in the department.

Audit found that the Operational Plan's objective is clearly aligned with the DERM Strategic Plan 2009-10. It also incorporates the performance indicators from the Strategic Plan and complements them with other performance indicators from the 2009 Service Delivery Statements.

The findings relating to objectives are discussed in Section 3.6 of this report, while the findings relating to the measurement of achievements against performance indicators are discussed in Section 4.

Conclusion

The DERM Operational Plan 2009-10 is clearly aligned with the Strategic Plan 2009-13 and outlines actions, initiatives and performance measures for each strategy in the Strategic Plan. However, the linkages between the Strategic Plan and the statutory objective of the Act could be more explicit.

To ensure the sustainable management of protected areas, it is important that the department continues to improve its planning systems, which could benefit from further consolidation, coordination and formalisation of current practices.

3.5.2 Integrated and comprehensive conservation strategy

Findings

Section 5 of the Act states the conservation of nature is to be achieved through an integrated and comprehensive conservation strategy for the whole of the state that involves, among other things, the following:

- gathering of information and community education
- dedication and declaration of protected areas
- management of protected areas
- protection of native wildlife and its habitat
- use of protected wildlife and areas to be ecologically sustainable
- recognition of interests of Aborigines and Torres Strait Islanders in nature and their cooperative involvement in its conservation
- cooperative involvement of landholders.

The Act also defines 'conservation' as the protection and maintenance of nature while allowing for its ecologically sustainable use.

Audit was advised that the department meets this legislative requirement through a series of plans and strategies developed and implemented by different divisions within the department. However, audit found no evidence of a formal system coordinating these various documents to ensure they are integrated and aligned, and ultimately cover all the legislative requirements of a comprehensive conservation strategy. The proposed redevelopment of the Master Plan should consider alignment with this statutory requirement to minimise duplication in planning activities and documentation.

A robust coordinating mechanism would ensure consistency of approach and efficient use of resources, but more importantly, minimise gaps and misalignment in governance and accountability. Such a system would also enhance the department's ability to report to Parliament on achieving conservation of nature outcomes.

Conclusion

The Act requires that the department has in place an integrated and comprehensive conservation strategy. Audit found no evidence of an established, formal, documented system or road-map that coordinates the various documents addressing this statutory requirement.

Setting clear and measurable objectives 3.6

The IUCN better practice advise that planning by objectives allows measurement of the effectiveness of the strategies implemented and the level of achievement of the desired outcome. Objectives need to be clearly articulated, measurable and within a specified timeframe. Setting clear and measurable objectives promotes accountability and assists in efficient operations if they are aligned and cascade from the strategic to the operational level.

Objectives also need to encompass all the key areas of responsibility and be linked to performance indicators that are relevant, appropriate and fairly represent performance. Findings about performance indicators are presented in Section 4 of this report.

Findings

Audit reviewed the various planning documents discussed in this section as well as the Service Delivery Statement 2009-10 to the extent relevant to the scope of this audit. Overall, audit found that there are clear linkages across the planning documents and the objectives are measurable and within a specified timeframe but for the exception of the Master Plan and the Service Delivery Statements.

The Master Plan is missing key requirements such as clear and measurable objectives and performance indicators and as a result does not lend itself to measurement and evaluation. In the Service Delivery Statements, audit was unable to find a clear, measurable service delivery objective aligned with the strategic objective relating to national parks and protected areas.

Audit also identified some opportunities for improvement in better aligning the objectives and articulating them clearly. For instance where park management plans are in place and current, the goals are broadly stated; they do not include a target nor indicate how success of an activity can be measured.

Conclusion

The department has established clear linkages across its planning documents and the objectives are measurable and within a specified timeframe. However, the Master Plan and the Service Delivery Statements do not have clear and measurable objectives aligned to the statutory objectives of the Act.

3.7 Recommendations

It is recommended that the Department of Environment and Resource Management:

- 1. Formalise a comprehensive planning process for park management plans which will:
 - (a) provide an evaluation process to prioritise the timely completion of plans for those parks which were declared because of their significant conservation values, and
 - (b) establish a forward plan for the finalisation of the management plans for the balance of the protected areas.
- 2. In accordance with the Nature Conservation Act 1992, formally and regularly review park management plans, and ensure that the associated thematic strategies remain current and relevant.
- 3. Ensure all business units and regions undertake a consistent approach to planning aligned to the better practice principles outlined in the IUCN guidelines.²⁰
- 4. Establish a formal system that coordinates the various documents addressing the statutory requirement for an integrated and comprehensive conservation strategy for the whole of the state, including an examination of the options to be included in a new Master Plan.

²⁰ IUCN – World Commission on Protected Areas (WCPA) Best Practice Protected Areas Guidelines.

Monitoring, evaluation and reporting

Summary

Background

This section presents the findings relating to monitoring, information, evaluation and reporting systems in place. It also outlines the findings on system integration and the performance indicators used by the department.

Key findings

- Monitoring data of activities is output focussed and could be complemented by data on achievement of outcomes, management effort and strategies in place, to highlight the effectiveness of the projects.
- Monitoring data across regions varies in quality, quantity and timeliness and there is a lack of evidence that a robust data validation system is in place.
- Systems that monitor results of thematic strategies, work schedules and regional business plans are well established.
- The Rapid Assessment Program (RAP) survey responses and good practice indicators set are subjective. The RAP survey questions are highly output focused with limited coverage of outcomes for protected areas across the state.
- The Ecological Assessment Unit has a well-developed systematic approach to monitoring the outcomes of specific projects administered by their unit, and in conjunction with regional offices.
- There is a lack of integration of the information systems that gather data across the department to assist with the management and monitoring of protected areas.
- The performance indicators used by the department are not relevant or appropriate for the conservation of nature outcomes established by Parliament.

4.1 Has the target been met?

For the department to determine whether it has met its planned outcomes efficiently and effectively, it must have robust monitoring systems that gather and analyse comprehensive, accurate and relevant data in a timely manner. Such systems should be complemented by a clear evaluation framework to appraise that information over time. This requires well articulated, outcome focused objectives with relevant, appropriate performance indicators that have been set and drive the monitoring system. The requirement for clear and measurable objectives is discussed in Section 3.6 of this report and performance indicators are discussed in Section 4.4.

Monitoring systems not only identify whether planned activities and initiatives are being implemented efficiently, but also provide the necessary feedback mechanism to adjust current activities where necessary and can inform future plans.

Comprehensive monitoring systems, combined with a robust evaluation framework, greatly assist in measuring the activities' effectiveness and the level of achievement against the objectives.

The evaluation framework being considered by the department is the Management Effectiveness Evaluation (MEE) framework developed by the International Union for the Conservation of Nature (IUCN). MEE is defined '...as the assessment of how well protected areas are being managed – primarily the extent to which management is protecting values and achieving goals and objectives.' ²¹

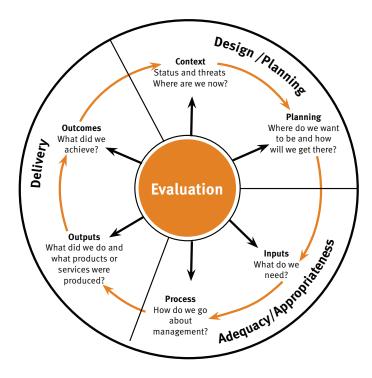


Figure 4.1 – Evaluation framework

Source: IUCN, Evaluating Effectiveness: A framework for assessing management effectiveness of protected areas -2^{nd} Edition, page 12.

²¹ IUCN – WCPA Management effectiveness evaluation in protected areas – a global study. 2008 Report page 7. (Leverington, Hockings and Costa).

The ability to report on the achievement of outcomes in an environmental situation, usually requires a combination of short, medium and long-term monitoring activities. Often, achievement of the conservation outcome takes many years to reach fruition.

4.2 Monitoring

The department uses a range of systems to capture data on activities, initiatives and projects. These systems include databases such as ParkInfo, Strategic Asset Management System (SAMS) and WildNet, as well as processes such as the Rapid Assessment Program (RAP).

The effective management of protected areas requires data captured during monitoring to be accurate, relevant, complete and timely. Information systems enable the reporting of planning inputs and outputs relating to service delivery outcomes within a structured governance arrangement to management and stakeholders. Both quantitative and qualitative data play an important role in informing planning and decision-making. Data gathered through monitoring over a period of time can assist in determining how well conservation of nature outputs and outcomes are achieved through relevant and appropriate performance indicators, thus providing an effective accountability mechanism.

4.2.1 Internal monitoring – outputs

Findings

The department uses a range of systems to collate data on the operational activities undertaken in protected areas and to monitor their progress against the plans.

Audit found that the systems that monitor results of thematic strategies, work schedules and regional business plans are in place and well established. The critical system for collating data for fire and pest activities undertaken across the protected areas estate is ParkInfo. This system also informs decision making and the submission of fire and pest project proposals.

SAMS provides an asset maintenance register, asset values, condition, and risk assessments of asset condition. SAMS is comprehensive and useful for the management of assets. Operational staff use these tools on a daily basis to record the completion of projects undertaken and to plan their future activities.

However, audit identified areas where these systems may be improved to make better use of the available data:

- the data currently entered into ParkInfo is output focussed and could be complemented by the inclusion of results highlighting the effectiveness of the project against the park values and conservation of nature objectives for the park
- within SAMS, audit found that data was not always validated at point-of-entry, therefore reducing the integrity of the data
- the systems are utilised across the state, but due to the varying levels of computer expertise in regional staff and competing priorities, data that is collated may vary in quality, completeness and timeliness.

Audit found that the department has a system in place to regularly report on the progress of operational activities, roadblocks or emerging issues.

Conclusion

The department has well established systems in place to monitor operational outputs. Output monitoring gives management assurance as to the number and types of activities undertaken. The department's systems would be enhanced by the inclusion of data on achievement of outcomes, management effort and strategies in place, to highlight the effectiveness of the projects. The integrity of the data could also be improved.

4.2.2 Internal monitoring – outcomes

Findings

Activities which contribute to the conservation of nature objective include controlled fire burns, pest control and eradication, asset construction and maintenance and specific conservation initiatives and research. Different units within the department are monitoring different aspects of conservation activities. This means that one part of the organisation is not necessarily aware of other monitoring being undertaken. Miscommunication could result in duplication of effort in the field, or activities designed and implemented that might be at cross-purposes with other activities.

As discussed above, the completion of the departmental activities is captured in ParkInfo and SAMS. While the data is output focussed, audit observed instances where some achieved outcomes were also recorded in the systems. However, this practice is not systematically applied.

Specific conservation initiatives and research is undertaken by both the department, through the Ecological Assessment Unit (EAU), and in the case of scientific research, by individuals within the boundaries of scientific permit conditions. The permits are assessed and granted by the department.

The EAU consists of field experts, scientists and planning officers and is responsible for planning, prioritising and delivering conservation initiatives, including specific rare and threatened species projects on the protected area estate. The EAU also assists operational staff to plan activities and provide input into the thematic plans.

Audit found that monitoring of the success of conservation initiatives is undertaken by the EAU and documented into several systems including the wildlife information system, WildNet, or the internal library. A report on each project is available to stakeholders on the outcomes of the project.

WildNet contains various data and reports that would assist with managing and monitoring outcomes of protected areas. In addition, it has been departmental practice in the past to collate the outcomes of scientific research undertaken in protected areas. At the time of the audit 1,008 scientific permits had been granted over the last six years, yet only 181 scientific permit reports were published on WildNet for use by the department. Audit noted that a condition of the granting of a permit was that, on completion or at regular intervals for long-term projects, a report would be submitted to the department. Audit identified that the department could make a more efficient use of the data resulting from scientific permits reports and consider it in its planning and monitoring processes.

In 2003, the RAP survey was introduced with the aim to quickly measure and report on how effectively Queensland's parks and forests are being managed.

According to the department's website, the organisational benefits of park categories (which assess each park's values and threats) and the RAP survey are that they provide:

- · a system to guide the setting of park management priorities, budgets and work programs
- · improved decision support for setting strategic directions
- a regular picture of management performance and trends in park management over time
- improved accountability and transparency in the management process.

To determine if individual parks have been effectively managed, a ranking is used by comparing the RAP survey results to good practice indicators (GPIs). RAP survey results are used to inform planning, decisions, evaluation and other data systems. Data for the survey is collected via self-recorded online questionnaires completed by field staff every two years.

Based on data collated in the 2008 survey, audit identified areas where these systems may be improved to make better use of the available data:

- Responses are based on the expertise and opinions of the officers completing the survey,
 making most responses subjective. Survey responses are then compared to GPIs that are also
 set by the individual person filling out the survey. There is only a moderate level of data
 validation, limiting the ability to accurately compare results between parks and over time.
- Analysis of the survey forming the basis of RAP revealed that the questions were mainly output
 focused. Audit considers that the output information gathered through RAP is of moderate value
 for the purpose of monitoring outcomes. RAP questions need to incorporate IUCN better
 practice questions that assess achievement of progress towards conservations outcomes. The
 department advised audit that it is working towards improving the questions in future surveys to
 incorporate more outcome focussed questions.
- Although RAP has been used over the past 10 years, the sample of parks completing the
 survey has not been consistent in each survey period. This inconsistency across the protected
 areas estate has decreased the validity of any trend data. Audit also noted that over 60 per
 cent of questions on the most recent RAP survey were completed as 'not applicable' or were
 not answered.
- The RAP data in its current form can not be compared over time because the first two surveys
 were based on an aggregation of protected areas while the latest survey is at individual national
 park level. The department advised audit that this will not be an issue for the future as it intends
 to continue surveying at the individual park level.

There is a risk that plans and evaluation of successes may be inaccurate due to the quality of data feeding into the process. A solid process of survey development, staff training, data checking and validation would improve the quality of data.

Conclusion

The EAU has a well-developed systematic approach to monitoring the outcomes of specific projects administered by their unit, and in conjunction with regional offices. However project monitoring needs to be conducted as part of an integrated, overarching monitoring framework, which captures information identifying trends overtime and across landscapes.

Scientific permits granted by the department to researchers could supplement research and monitoring being undertaken by the department's EAU. The results of these permits are not well communicated and the opportunity for utilisation by regional and park staff is lost.

The department relies on the data collected through the RAP as a tool to inform their planning and evaluation. Audit noted that the data is subjective, lacked integrity and was not complete.

4.2.3 Effective monitoring through integrated systems

A lack of data and system integration may:

- · delay the department's ability to quickly respond to changing business needs
- · increase the risk of duplication
- increase operational costs
- require manual intervention to provide complete information.

Findings

Several information systems gather vital data across the department to assist with the management and monitoring of protected areas. Most of these systems are not well integrated. For instance, the current ParkInfo system is not integrated with the other park management systems. Given the wide range of stakeholders that use and rely on information from ParkInfo, integration with other systems would achieve effective, coordinated management of data and performance information across the state.

The department has provided audit with plans to release a ParkInfo version 2.0 that will include integration of other systems. However, audit noted that ParkInfo version 2.0 would exclude WildNet at this stage.

Conclusion

The integration of information systems is vital to the quality of data available for decision making. Disaggregation can cause duplication and inefficiencies in gathering key information from various systems. It also can cause confusion to users of the systems. Information and knowledge gaps remain about values within parks and the issues that impact on them.

4.3 Evaluation

IUCN defines evaluation as '...the judgement of the status/condition or performance of some aspects of management against predetermined criteria (usually a set of standards or objectives); in this case including the objectives for which the protected areas were established.' ²²

Evaluation is a systematic and objective assessment of appropriateness, effectiveness and efficiency of a planned activity. Evaluation is necessary to ensure objectives are still relevant and strategies and plans are still appropriate to meet the objectives of the department.

²² IUCN Evaluating Effectiveness: A framework for assessing management effectiveness of protected areas 2nd Edition. 2006 page. Xiii.

Findings

As outlined in Section 3 of this report, a number of planning documents are not being systematically and formally evaluated or reviewed in a timely manner. Audit noted a number of park management plans have lapsed, have not been formally reviewed or remain in draft form. Some park folios and thematic management strategies have not been formally evaluated over the last few years and the Master Plan has not been reviewed since it was issued in 2001 despite a requirement to do so every five years. Due to the absence of formal review processes applied consistently and systematically, the department is unable to evaluate its achievements and provide a definite assessment on how these contributed in meeting the objectives.

With regard to specific monitoring projects, such as the Conservation Initiatives, audit noted that the department has conducted two reviews of management outcomes in selected protected areas. Such reviews use information from park folios, RAP and monitoring programs, and are based on the MEE framework discussed earlier in this section. As this evaluation process is at the initial stages of development, it has not been included in this audit due to the lack of application across park management plans.

Conclusion

Reliance on subjective, outdated and incomplete data is used to evaluate achievements and to inform planning and decisions. This, combined with poorly integrated information management systems, limits the effective management of protected areas. Evaluation of plans should occur regularly to assess whether the objective is being achieved efficiently and economically.

4.4 Performance reporting

Agencies are accountable to Parliament, Ministers, the general public and other key stakeholders for their performance. Accountability relies on good performance information and requires that the performance indicators used are relevant, appropriate and fairly represent performance to allow stakeholders to make judgements about achievements and any necessary corrective action. Audit criteria for performance reporting are detailed below:

Figure 4.2 – Audit criteria

Criteria	Description	
Relevant	The indicators should have a logical and consistent relationship to statutory and strategic objectives which clearly define what is to be measured and are linked to the Government's desired outcomes.	
	The department is accountable for the achievement of the objective and service delivery for reporting against the indicator(s).	
	For services, include a balanced set of service standards that construct the service, namely quantity, quality, timeliness and cost.	
Appropriate	The indicators and measures should include sufficient information to assess the extent to which the department has achieved a predetermined objective, target or outcome including reference to:	
	the trend in performance over time	
	performance relative to predetermined targets and benchmarks; and	
	performance relative to performance of similar agencies	
	The indicators should be accompanied by adequate notes that allow stakeholders to draw conclusions about the performance of the agency.	
Fairly represent	The information provided must include verifiable indicators about achievement of the department's objective(s), be consistent in all public documents reporting the information and clearly explain the context, meaning and any limitations in the indicators reported.	

Source: Queensland Audit Office

4.4.1 External performance reporting

Audit examined the performance indicators used in the department's *Strategic Plan 2010-14* and *Service Delivery Statements 2010-11*. It also looked at the *State of the Environment* report which the government tables in Parliament every four years and was last produced in 2007.

Findings

The objective of the department's strategic plan for 2010-14 for national parks and the protected estate is 'Ecosystems are healthy, protected and bio-diverse.' The three performance indicators listed to measure that achievement against the strategic plan objective are:

- increased proportion of the state protected for national park and nature conservation (achievement against Toward Q2 Green target)
- · contribution to nationally agreed priorities for biodiversity conservation
- extent to which policy, legislative, planning, management and monitoring frameworks are in place to protect biodiversity and conserve wildlife and ecosystems.

Audit found that the performance indicators are not relevant to the achievement of the strategic objective. To be relevant they would need to provide direct, explicit measures of the health, protection and biodiversity of the ecosystems and relate to the statutory objective in the Act. In addition, audit also noted that for three of the past four years the strategic objective and performance indicators have changed, limiting the department's ability for trend analysis and evaluation of achievement of objectives.

The department, under the service of 'Environment' in its *Service Delivery Statements 2010-11*, reports against four service delivery measures relating to the management of national parks and protected areas.²³ The State Performance Management Framework requires a service delivery objective for each funded service. Audit noted that the department has not included a service delivery objective for its 'Environment' service. This prevents assessment of relevance of the measures as there is no objective published.

Audit found that the service delivery measures are all quantitative measures, with no corresponding measures of quality, timeliness or cost to round out a relevant set of measures for the service. These measures only represent a proportion of the total activities performed in delivering services to the national parks and the protected areas estate, questioning their appropriateness for reflecting the services delivered. Audit also noted that all of the service delivery measures relevant to the conservation of natural and cultural heritage in protected areas are new for 2010-11. This limits the opportunity for trend analysis and evaluation of achievements in what does or does not work well in maximising impacts on effectiveness and efficiency in achievement of conservation of nature objectives.

Audit noted that under the standards of the IUCN, the Commonwealth, New South Wales and Victoria present to their respective Parliaments and the wider community, a report titled 'State of the Parks' reporting. These reports focus on the reporting of outcomes against nature objectives in the management of national parks and protected areas, on an aggregate and park by park basis.

The Queensland Government publishes the State of the Environment Report. This report has a wider focus and aims to present an assessment of the condition and trend of the state's environmental assets, the pressures upon them and the actions being taken to maintain or restore these assets.²⁴ A review of this report identified a number of performance indicators relating to the sustainable management of national parks and protected areas. However, these are mostly quantitative in nature and do not reflect measures of efficiency or effectiveness in conservation outcomes.

Overall audit found that the department does not have relevant or appropriate performance indicators to measure its achievements in managing the protected area estate against the objectives of the Act, its Strategic Plan and Service Delivery Statements.

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²³ Department of Environment and Resource Management, 2010-11 Queensland State Budget – Service Delivery Statements.

²⁴ Queensland Government, State of the Environment Queensland 2007.

Conclusion

The performance indicators used by the department are not relevant or appropriate for the conservation of nature outcomes established by Parliament. Therefore they cannot fairly represent the department's performance.

The strategic plan performance indicators and service delivery measures lack key elements to enable the department to fairly represent its achievements against the objectives set by Parliament with regard to the Act.

4.4.2 Internal performance reporting

Performance information is a tool for performance management and improvement. It provides a basis for informed decision making and also serves as an early warning system which enables managers to undertake timely preventative action in achieving objectives.

Findings

The key planning documents for internal management and reporting against, are the DERM Operational Plan, QPWS Program Plan, QPWS Business Plan and QPWS Regional Business Plans, which are discussed in Section 3 of this report. Each plan should inform the next level of plan, aligning objectives and performance indicators and service delivery measures to provide a seamless performance measurement framework focussed on achievement of objectives.

Audit found that overall the performance indicators in each of these plans did not clearly align, inhibiting the use of relevant performance indicators and service delivery measures in strategic plans and budget papers. Quarterly reporting is presented to the department's Executive Management Group. However, the service delivery measures used, as reported above, are not relevant to the achievement of statutory and strategic objectives.

Conclusion

The internal planning documents lacked a consistent alignment to relevant performance measures. They do not have all the key elements to enable the department to measure, report and evaluate its achievements against the conservation of nature objectives.

Recommendations 4.5

It is recommended that the Department of Environment and Resource Management:

- 5. Establish a system to validate and improve the integrity, accuracy and quality of the data collected and ensure a reliable and consistent approach to monitoring of operations.
- 6. Formalise a monitoring and evaluation framework, such as the IUCN's Management Effectiveness Evaluation framework, and apply this process consistently to ensure adequate evaluation is undertaken to inform the future departmental direction and actions.
- 7. Develop performance indicators that are relevant and appropriate and which are capable of fairly representing the agency's achievements in managing national parks and protected areas in line with the objective of the Nature Conservation Act 1992 and departmental strategic planning objectives.

5 Appendices

5.1 Acronyms

ANZECC Australia and New Zealand Environment and Conservation Council

DERM Department of Environment and Resource Management

Cls Conservation Initiatives

CSP Conservation Strategy and Planning

EAU Ecological Assessment Unit

EPA Environmental Protection Agency

GPIs Good Practice Indicators

IUCN International Union for Conservation of Nature

MEE Management Effectiveness Evaluation

NRS National Reserve System

PMS audit Performance Management Systems Audit

QPWS Queensland Parks and Wildlife Service

RAP Rapid Assessment Program

SAMS Strategic Asset Management System

5.2 Glossary

Agency objective

The effects or impacts that an agency seeks to have on its clients, stakeholders, or the broader community.

Audit criteria

A set of reasonable and acceptable standards of performance.

Audit objective

The overall question the audit is seeking to answer.

Conservation

Conservation is the protection and maintenance of nature while allowing for its ecologically sustainable use.

Desk reviews

Limited-scope examination of documents and records, away from the place of action.

Effectiveness

The achievement of objectives or other intended effects of activities at a program or entity level.

Efficiency

The use of resources such that output is optimised for any given set of resource inputs, or input is minimised for any given quantity and quality of output.

Evaluation

Evaluation is a complementary tool for accountability. Evaluation is the systematic, objective assessment of appropriateness, effectiveness and/or efficiency of a program or part of a program.

Monitoring

The process of repeated observation, for specified purposes, of one or more elements of the environment, according to prearranged schedules in space and time and using comparable data collection methods.

Outcome

What did we achieve? Approaches to outcome evaluation for protected area management involve long-term monitoring of the condition of the biological and cultural resources of protected areas and systems, to some extent focusing on the quality of management achievements.

Outputs

What were the results? Considers what has been done by management and examines the extent to which specific targets, work programs or plans have been implemented, to some extent focusing on the quantity of management achievements.

ParkInfo

A computerised parks-based system used to distribute information and to access, present, capture, integrate and interact with QPWS management data.

Park folios

A record of quantitative and qualitative data for individual QPWS estate areas.

Park categories

A comparative rating of park values, threats and management opportunities across the state, under the themes of nature conservation, cultural heritage and presentation.

Park profiles

A tool which assists with setting strategic management priorities for Queensland's parks and forests. It includes the categorisation of all parks and forests in Queensland, and the Rapid Assessment Program which evaluates how well parks are managed.

Park management plan

The Nature Conservation Act 1992 requires that management plans be prepared for each national park to guide how the park is managed. The management plan:

- identifies the park's key natural and cultural values, and
- proposes strategies for day-to-day and long-term management to protect those values.

Performance indicator

Measures the extent to which agencies are achieving their objectives.

Protected area

An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means. Specifically for this report, it is an area of a class mentioned in s.14 of the Nature Conservation Act 1992 which is administered by the department.

Sustainability

In relation to protected areas is the use of the areas; within their capacity to sustain natural processes while;

- maintaining the life support systems of nature; and
- ensuring that the benefit of the use to present generations does not diminish the potential to meet the needs and aspirations of future generations.

Target

The specific intended results to be achieved within explicit timeframes, against which actual results will be compared and assessed.

WildNet

The department's corporate information system for wildlife. It is an Oracle database designed to act as a central repository for the department's information on marine and terrestrial wildlife, incorporating distributional data, textual information and multimedia.

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6 | Auditor-General Reports to Parliament

6.1 Tabled in 2010

Report No.	Subject	Date tabled in Legislative Assembly
1	Auditor-General Report to Parliament No. 1 for 2010 Audit of A1 Grand Prix Agreements A Financial and Compliance audit	4 February 2010
2	Auditor-General Report to Parliament No. 2 for 2010 Follow-up of selected audits tabled in 2007 A Performance Management Systems audit	23 March 2010
3	Auditor-General Report to Parliament No. 3 for 2010 Administration of Magistrate Court Services in Queensland A Performance Management Systems audit	13 April 2010
4	Auditor-General Report to Parliament No. 4 for 2010 Results of local government audits Financial and Compliance audits	21 April 2010
5	Auditor-General Report to Parliament No. 5 for 2010 Performance Reviews – Using performance information to improve service delivery A Performance Management Systems audit	18 May 2010
6	Auditor-General Report to Parliament No. 6 for 2010 Using student information to inform teaching and learning A Performance Management Systems audit	20 May 2010
7	Auditor-General Report to Parliament No. 7 for 2010 Information systems governance and control, including the Queensland Health Implementation of Continuity Project Financial and Compliance audits	29 June 2010
8	Auditor-General Report to Parliament No. 8 for 2010 Results of audits at 31 May 2010 Financial and Compliance audits	6 July 2010
9	Auditor-General Report to Parliament No. 9 for 2010 Sustainable management of national parks and protected areas A Performance Management Systems audit	October 2010

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