Queensland Audit Office

Environmental regulation of the resources and waste industries

Report 15 : 2013–14

Queensland Audit Office

Location Level 14, 53 Albert Street, Brisbane Qld 4000

PO Box 15396, City East Qld 4002

Telephone (07) 3149 6000

Email qao@qao.qld.gov.au

Online www.qao.qld.gov.au

© The State of Queensland. Queensland Audit Office (2013)

Copyright protects this publication except for purposes permitted by the *Copyright Act 1968*. Reproduction by whatever means is prohibited without the prior written permission of the Auditor-General of Queensland. Reference to this document is permitted only with appropriate acknowledgement.

Front cover image is an edited photograph of Queensland Parliament, taken by QAO.

ISSN 1834-1128

Your ref:
Our ref: 2013-9108P
Contact: Mr D Brown 3149 6080

Queensland Audit Office

April 2014

The Honourable F Simpson MP
Speaker of the Legislative Assembly
Parliament House
BRISBANE QLD 4000

Dear Madam Speaker

Report to Parliament

This report is prepared under Part 3 Division 3 of the *Auditor-General Act 2009*, and is titled Environmental regulation of the resources and waste industries.

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

Yours sincerely

Andrew Greaves
Auditor-General

Contents

Summary **1**

Conclusions 1
Recommendations 4
Reference to comments 5

1 Context **7**

1.1 Background 7
1.2 Past reviews 7
1.3 Current regulatory system and strategies 8
1.4 Audit objective, method and cost 13
1.5 Report structure 14

2 Supervision **15**

2.1 Background 16
2.2 Conclusions 16
2.3 Compliance planning 16
2.4 Data quality 18
2.5 Risk assessments 19
2.6 Annual oversight 20
2.7 Recommendations 23

3 Monitoring **25**

3.1 Background 26
3.2 Conclusions 26
3.3 Inspections 27
3.4 Certified auditors 31
3.5 Recommendations 32

4 Enforcement **33**

4.1 Background 34
4.2 Conclusions 34
4.3 Enforcement tools 34
4.4 Measuring effectiveness of enforcement 39
4.5 Recommendations 40

5 Financial assurance **41**

5.1 Background 42
5.2 Conclusions 42
5.3 Sufficiency of financial assurances 43
5.4 Forfeiture of financial assurance 45
5.5 Care and maintenance 46
5.6 Pooled fund model for rehabilitation 48
5.7 Recommendations 49

Appendix A— Comments **53**

Appendix B— Audit method **63**

Appendix C— 2011 waste audit **65**

Appendix D— Department of Environment and Heritage Protection inspections **67**

Summary

The Queensland Government has identified the sectors of tourism, agriculture, resources and construction as key elements of the state's 'four pillar economy'. Each sector is a key driver of investment in Queensland's economy and each affects the state's environment in some way.

The resources sector accounts for over two-thirds of all investment decisions in the state and employment in this sector has increased from 16 500 to 73 400 positions over the past decade. This growth comes with increased risk of environmental harm and the possibility of adding to an estimated 15 000 abandoned mines and up to $1 billion estimated cost if all mines were to be rehabilitated.

All human activities, including those of the resource industry, generate waste and can have a negative effect on the environment and public health. Appropriate treatment and disposal of wastes that cannot be reused or recycled are critical to minimising adverse effects and are also the basis of an important industry—the waste sector.

The Auditor-General Report to Parliament *Regulating waste: protecting the environment (*No. 10 of 2011), noted that Queensland was one of Australia's largest generators of waste and found opportunities to improve the monitoring and enforcement of environmental compliance in the waste industry.

In Queensland, the Department of Environment and Heritage Protection (EHP) administers the *Environmental Protection Act 1994* (the Act) and is the regulator of the resources and waste industries under that Act.

The Department of Natural Resources and Mines (NRM) administers the *Mineral Resources Act 1989* and the *Petroleum and Gas (Production and Safety) Act 2004* and is the regulator of the resources industry under these Acts.

The objective of the audit was to determine whether the supervision, monitoring and enforcement of environmental conditions for resource and waste management activities is effective and protects the state from liability for rehabilitation and the environment from unnecessary harm.

Conclusions

EHP is not fully effective in its supervision, monitoring and enforcement of environmental conditions and is exposing the state to liability and the environment to harm unnecessarily.

Poor data and inadequate systems continue to hinder EHP's planning and risk assessments. As a result, EHP cannot target its monitoring and enforcement efforts to where they are most needed. This situation is exacerbated by the lack of coordination and sharing of relevant information across agencies, particularly between EHP and NRM.

Under its regulatory strategy, EHP focuses less on regulating access to the market—through the assessment and approval of applications for environmental authorities and their conditions—and directs its resources to increased effort in enforcement. To be effective, this approach requires high quality, relevant, reliable and timely data.

However, the common thread throughout this report is the poor quality of data held by EHP and its predecessors relating to its supervision, monitoring and enforcement activities and to its administration of fee debt and financial assurances. Data are unreliable; hard to access; difficult to analyse; and often incapable of providing timely and quality information to inform decisions. This legacy issue has been known for years without being addressed. The actions proposed now to address this issue are long overdue.

Poor data have hampered past approaches to effective environmental regulation of the mining and waste industries. This issue is now brought into even sharper relief under the current regulatory strategy, based as it is on government policy to ease the burden on industry caused by regulation and its associated bureaucracy—red tape and green tape specific to environmental issues.

Green tape reduction aims to reduce costs for industry and government while maintaining environmental standards. To be effective, this requires the appropriate allocation of resources and effort according to the risks involved and outcomes to be achieved. The inability of both departments to assess risk effectively, and to target and coordinate their resources appropriately reduces confidence for the community that the environment is protected and standards have been met.

Supervision

EHP remains hampered in its ability to target its strategies, operations and resources effectively to maximise compliance and detect non-compliance. Planning and risk assessments remain limited by poor data quality, systems and practices; and this situation is compounded by the limited information exchange and collaboration with NRM.

Since *Regulating Waste: protecting the environment*, EHP has improved its compliance planning framework. EHP's central office now has greater involvement and coordination with the regions in the development of compliance plans and, as a result, departmental and regional plans are more consistent. These plans inform the department's inspection program but have few performance measures and targets, making it difficult to determine success in achieving objectives.

Holders of environmental authorities are required to pay an annual fee and provide an annual return declaring their compliance with environmental conditions. EHP has made progress over the past three years in reducing the number of overdue annual returns; but it does not assess annual returns for accuracy, and it could make better use of the information in the annual returns it receives. This means there is a risk that non-compliance is occurring undetected and that valuable information to guide monitoring and compliance planning decisions is not available to EHP.

EHP decreased the total outstanding annual fee debt from $7.54 million in October 2012 to $6.66 million in January 2014, but this includes $447 700 in overdue debts written off by EHP. While the overall debt has reduced, those debts overdue by more than 90 days have increased from $5.96 million in October 2012 to $6.12 million in January 2014. The 90-day overdue fees equate to 92 per cent of the total overdue fees.

Monitoring

The EHP monitoring program does not match its intent in its regulatory strategy. Until it does, EHP's monitoring activities are less likely to be an effective deterrent to non-compliance.

Despite a net increase in inspections, there is little evidence to demonstrate that EHP's monitoring is timely or is appropriately informed by changing risk considerations. This is largely because of weaknesses in EHP's data management systems relating to monitoring data, which are incomplete and unreliable.

EHP increased the number of inspections of resource activities between 2008-09 and 2012-13 by 88 per cent, mainly due to more proactive inspections. This corresponded with a 99 per cent increase in environmental authorities between 2008–09 and 2011–12, followed by a 59 per cent decrease in 2012-13. However, EHP's data practices do not capture sufficient information to indicate reliably the compliance levels or the coverage of its monitoring across the resources industry. As a result, EHP does not know whether its activities are improving industry compliance with environmental conditions and its monitoring program is not as informed and targeted as it could otherwise be.

EHP does not do periodic or systematic risk assessments or inspections of sites with standard conditions and standard conditions with a variation, unless it receives a complaint or incident notification. As a result, it does not know the actual risk posed by the majority of these sites.

Enforcement

EHP has a variety of enforcement tools available to address non-compliance, including warnings, penalty infringement notices, management programs, statutory orders and prosecution. EHP does not know the effectiveness of issuing penalty infringement notices as an enforcement tool in the resources industry, because of its poor data and its inability to isolate notices issued to the resources industry from the other industries it regulates. It does not collate and analyse information on the effectiveness of its use of warnings, management plans or statutory orders. For these reasons, it does not know if its enforcement activities are having any effect in improving compliance and environmental outcomes.

EHP commences prosecutions as a last resort and these are usually successful. However, it does not always capture the full costs of its prosecutions, such as costs of investigations, and therefore misses the opportunity to recover these costs through the courts. It often only applies for its external costs, such as engaging lawyers.

EHP does not systematically link its inspections data with its enforcement data to identify the percentage of inspections where non-compliance issues are found. This would enable trend analysis to indicate whether industry compliance levels are improving, deteriorating or remaining static. Where it has tried to do this, it has found that a third of the sites it proactively inspected were compliant, a third were non-compliant and its data were inadequate to determine whether the site was compliant or not in the remaining third.

EHP's quarterly performance report for the first quarter of 2013–14 shows that it did not meet its target of finding 60 per cent for sites compliant during follow-up inspections, instead it found 37 per cent of facilities were compliant. This result included all industries regulated by EHP and therefore it was not possible to distinguish its performance in relation to the resources and waste industries.

Financial assurances

Environmental rehabilitation at the expense of those in the mining industry whose activities cause the damage, continues to remain an unrealised aspiration.

Environmental rehabilitation does not always happen once approved resources activities cease. A cause of unsuccessful rehabilitation is the inability of the operators to meet the rehabilitation requirements which, in some cases, may be unachievable. This means some sites go into care and maintenance and a few operators forfeit the financial assurance to the state. As the financial assurance is often insufficient to cover the estimated cost of site rehabilitation, the state is left with an increasing legacy of sites that are not rehabilitated.

There are a number of reasons why a mine might go into care and maintenance, such as changes in world commodity prices. It can also be used as a means of avoiding rehabilitation. There is no clear definition of care and maintenance sites and there are a lack of protocols between EHP and NRM about the management of these sites. This results in sites remaining in care and maintenance while the departments dispute over the administrative and regulatory responsibility for the site.

There is no clear record of financial assurance held by the state because some assurance is held by NRM and some is held by EHP. Inadequate communication and processes between the two departments mean there is no reconciliation of records between the departments against funds held. At times, EHP staff did not know whether the financial assurance they required from an environmental authority holder had been requested, received or retained by NRM.

The financial assurance held by the state has historically been insufficient to cover the estimated rehabilitation costs; however, over recent years, EHP made a concerted effort to increase the amount held and to reduce the gap. This has resulted in a significant increase in assurances held of $3.5 billion (240 per cent) for the sample we examined.

The amount of financial assurance requested is not always the amount calculated as necessary for rehabilitation, meaning sites remain with insufficient financial assurance. This leaves the state exposed, should the environmental authority holder go into administration.

Where financial assurance held by EHP and NRM is insufficient to cover the costs of rehabilitation, the departments are reluctant to take appropriate action to revoke permits and claim financial assurance. This risks future environmental damage, which could result in rehabilitation and management costs to the state.

Recommendations

It is recommended that:

1. **the Department of Environment and Heritage Protection and the Department of Natural Resources and Mines improve the exchange, coordination and accessibility of information to achieve better planning and risk assessments to inform their compliance activities**
2. **the Department of Environment and Heritage Protection pursues enforcement action to recover the long-term debt it is owed from annual fees**
3. **the Department of Environment and Heritage Protection utilises information provided in annual returns to inform its compliance planning and improve its supervision of the industries it regulates**
4. **the Department of Environment and Heritage Protection implements a program to proactively monitor compliance with environmental authorities with standard conditions and variations to standard conditions.**
5. **the Department of Environment and Heritage Protection captures and recovers the full cost of investigating and prosecuting all non-compliance cases**
6. **the Department of Environment and Heritage Protection improves its performance measurement and reporting to demonstrate the effectiveness of its activities in achieving environmental outcomes**
7. **the Department of Environment and Heritage Protection assumes responsibility for administering all financial assurances, including those currently collected and held by the Department of Natural Resources and Mines.**
8. **the Department of Environment and Heritage Protection ensures the financial assurance it calculates and collects reflects the estimated cost of environmental rehabilitation**
9. **the Department of Environment and Heritage Protection and the Department of Natural Resources and Mines establish clear definitions, guidelines and formal protocols for dealing with the ongoing management of, and where necessary the transfer of responsibility for, 'care and maintenance' sites.**

Reference to comments

In accordance with section 64 of the *Auditor-General Act 2009,* a copy of this report was provided to the Department of Environment and Heritage Protection and the Department of Natural Resources and Mines with a request for comments.

Their views have been considered and are represented to the extent relevant and warranted in preparing this report.

The comments received are included in Appendix A of this report.

1 Context

This chapter provides insight into the key issues and elements affecting environmental regulation of the resources and waste industries in Queensland.

1.1 Background

The environment is the one significant feature common to each of the four pillars of the government's economic strategy. The challenge for any government is to find an appropriate balance so natural resources are used to their maximum potential in an environmentally sustainable way.

The resources industry adds significant economic and social value to the state and the nation through royalties, investment, employment and community development. The industry also has the potential to cause environmental harm that may be irreversible or take years to rectify. It could also cause significant economic and social harm.

On 19 December 2013, Queensland's Supreme Court found the government breached its duty of care to residents of Collingwood Park by not supervising, monitoring and enforcing adequately the conditions of a mining lease that covered the area. This exposed the state to compensation claims. Any compensation awarded will add to the ongoing cost to taxpayers for the environmental management of the area.

The court's decision established that the state, through its regulator, has a duty of care to properly supervise, monitor and enforce the conditions it imposes on holders of mining leases. The court found there was no breach of duty of care by the state arising from the failure to remediate the site. Nevertheless, the case highlights the need for the regulator to be proactive in discharging its duty of care to ensure it protects the state from liability for damages. It also highlights the potential effect of inadequate rehabilitation and the need for the regulator to meet community expectations in balancing economic growth with social and environmental wellbeing.

1.2 Past reviews

In 2007, the former Service Delivery and Performance Commission conducted a review of the roles and responsibilities of the Department of Natural Resources, Mines and Water (a predecessor to the Department of Natural Resources and Mines (NRM)), the Environmental Protection Agency (a predecessor to the Department of Environment and Heritage Protection (EHP)) and the Department of Primary Industries and Fisheries. This included an examination of the management of abandoned mines in Queensland.

The review found that the responsibilities and processes between public sector agencies for the transfer of sites to the abandoned mines land program were unclear. Abandoned mines are resource sites no longer operated by environmental authority holders but that have ongoing environmental management or public safety issues. It is estimated there are 15 000 abandoned mines in Queensland, 3 500 on state-owned land.

As a result of this review, NRM became responsible for the management and rehabilitation of abandoned mines through its abandoned mines land program.

In 2011, the Queensland Auditor-General conducted an audit of the regulation of the waste industry. The audit identified inadequacies with data management systems and the reporting framework of the Department of Environment and Resource Management (DERM), which reduced its effectiveness in administering and enforcing the legislation. It also identified delays in DERM (now EHP) collecting annual returns and fees from operators. The audit noted that, while a wide range of data were collected on compliance enforcement, there were difficulties in extracting disaggregated data from the system.

The resulting report to Parliament *Regulating waste: protecting the environment* (No. 10: 2011) included six recommendations which DERM accepted. The recommendations are listed in Figure 1A.

Figure 1A
Recommendations of Auditor-General Report to Parliament No 10 for 2011

Report recommendations	
It is recommended the Department of Environment and Resource Management:	
1	implements, as planned, projects to: a) review all existing high and very high risk environmentally relevant activity development approval conditions to reflect current environmental standards b) formalise a methodology to develop compliance plans and monitor the implementation of compliance plan project recommendations
2	ensures that all annual returns from operators are reviewed in a timely manner and collects any outstanding annual fees in accordance with legislation
3	provides assistance and oversight to ensure a rigorous, consistent approach to regional compliance planning which adequately covers identified risks and priorities
4	regularly analyses and reports activity across its full suite of enforcement actions against levels of non-compliance to determine the timeliness and effectiveness of enforcement actions
5	reviews its performance measures, baseline data and external reporting to ensure these aspects of performance management represent the outcomes of regulatory activity on protecting the environment
6	ensures that its information systems produce data that are reliable, relevant, complete and easily accessed by all users of the systems

Source: Queensland Audit Office

The progress of EHP (formerly DERM) in implementing the recommendations of Report to Parliament No 10 for 2011 is detailed in Appendix B.

1.3 Current regulatory system and strategies

1.3.1 Roles and responsibilities

Department of Environment and Heritage Protection

In Queensland, EHP administers the *Environmental Protection Act 1994* (the Act) and is the regulator of the resource and waste industries under that Act.

The objective of the *Environmental Protection Act 1994* is:

> *…to protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (ecologically sustainable development).*

EHP performs its function by:

- assessing and approving applications for environmental authorities
- supervising, monitoring and enforcing conditions in environmental authorities
- setting, receiving and reviewing annual returns and associated fees
- administering financial assurances for industry activities it regulates, including waste and petroleum and natural gas (PNG) resources activities. Financial assurance for non-PNG activities is administered by NRM.

The EHP structure has three regions (northern, central and southern), each responsible for the operational monitoring and enforcement of compliance with conditions of environmental authorities. These regions are responsible for all resources, including coal seam gas, petroleum and natural gas, waste and environmental matters.

EHP's northern region covers 40 per cent of the state and includes areas west to the Queensland/Northern Territory border and north of Cairns. Resources sites in these areas include precious metals.

EHP's southern region covers 27 per cent of the state and includes coal mines in Ipswich, sand mines on Stradbroke Island, opal mines west to Quilpie and coal seam gas exploration that has proliferated in recent years.

EHP's central region covers 33 per cent of the state and includes offices in Emerald, Rockhampton and Mackay. The majority of the central region's work focuses on coal and opal mines.

Figure 1B shows the approximate mix of resources and waste sites in each region, with level 1 being high risk sites and level 2 being low risk.

Figure 1B
Resources and waste activities by EHP region

Region	Level 1 resources sites	Level 2 resources site	Petroleum and gas sites	Waste and non-resources sites
Northern	60	More than 2 000	Nil	More than 1800
Southern	36	580	43 Level 1 128 Level 2	2 054
Central	57	More than 3 000	Nil	524

Source: Department of Environment and Heritage Protection

Department of Natural Resources and Mines

NRM administers the *Mineral Resources Act 1989* and the *Petroleum and Gas (Production and Safety) Act 2004* and is regulator of the resources industry under these Acts.

The purpose of the *Mineral Resources Act 1989* is to:

> *.. provide for the assessment, development and utilisation of mineral resources to the maximum extent practicable consistent with sound economic and land use management.*

Its principal objectives are to:

- encourage and facilitate prospecting, exploring and mining of minerals
- enhance knowledge of the mineral resources of the state
- minimise land use conflict with respect to prospecting, exploring and mining
- encourage environmental responsibility in prospecting, exploring and mining
- ensure an appropriate financial return to the state from mining
- provide an administrative framework to expedite and regulate prospecting, exploring and mining of minerals
- encourage responsible land care management in prospecting, exploring and mining.

NRM has regulatory responsibility for resource activities including:

- collection of tenure rents
- site safety and health regulations
- administration of financial assurance for mining resources activities, excluding petroleum and natural gas activities which are administered by EHP
- approvals of licencing and permits.

The NRM structure has three regions—northern, central and southern—which align with EHP regions; and, in most cases, the offices for each region are located in the same building or in close proximity.

1.3.2 Regulating environmental authorities

In Queensland, EHP regulates most resources and waste operators using 'environmental authorities'. The Act lists the environmentally relevant activities for which environmental authorities are necessary.

If an operator's activities result in disturbance to the environment, the operator must hold an environmental authority. The authority covers all environmentally relevant activities that may be carried out on a site and the operating conditions required under the *Environmental Protection Act 1994*.

Environmentally authorities for resources activities were classified as either level 1 or level 2, depending on their scale and assessed risk. Level 1 activities presented a higher risk of causing serious environmental harm, usually due to the type and scale of activity or environmental disturbance. Level 2 activities were considered to present a low risk of causing serious environmental harm.

Although still referred to as level 1 and level 2 within EHP, the terminology changed as a result of the *Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012.* Environmental authorities for Level 2 activities are now called standard authorities and are issued with standard conditions or with a variation to standard conditions. Level 1 activities are now called site-specific environmental authorities and are still issued with environmental conditions specific to the type and scale of the planned activities.

Regulatory strategy

One of the government's key strategies is to ease the burden on industry caused by regulation and its associated bureaucracy—red tape and green tape specific to environmental issues.

The government committed to streamlining the process for obtaining an environmental authority by reducing green tape, without lowering environmental standards or protection.

In February 2013, EHP released its current regulatory strategy, which is intended to:

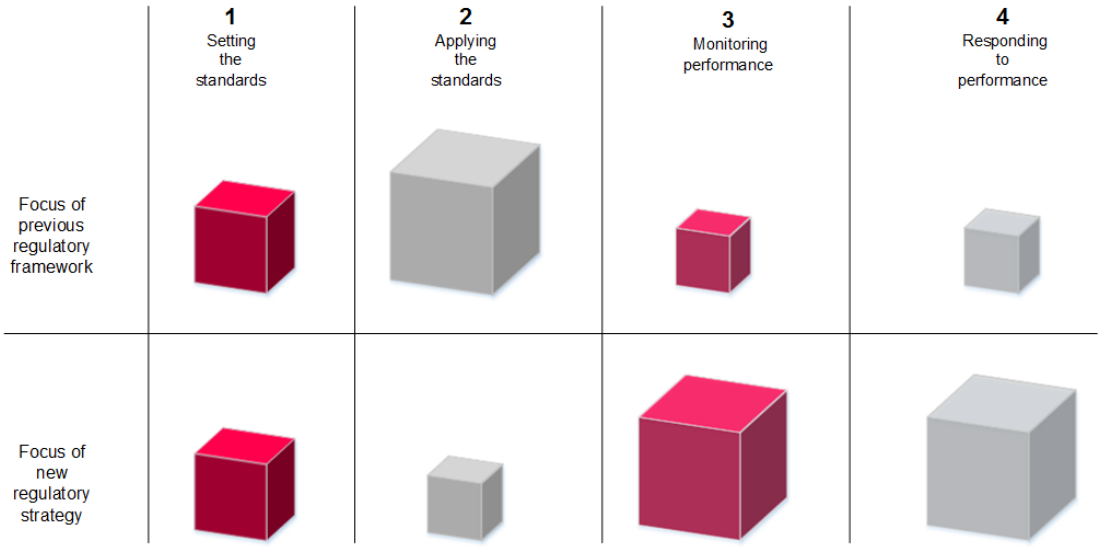
> *… reinforce the department's objective of strong environmental management supporting sustainable economic development.*

EHP describes its regulatory strategy as representing a 'fundamental shift' in the way it is to undertake its environmental regulatory role. This shift includes a commitment that environmental regulation would be an '*enabler of, not a roadblock to, sustainable development*'. The strategy categorises EHP's regulatory activities into four stages:

- setting the standards that clients must meet
- applying those standards to specific cases by assessing applications for environmental authorities
- monitoring the performance of activities that have been approved
- responding to performance, including taking strong, proportionate and consistent enforcement action.

Figure 1C shows that under the current regulatory strategy, EHP focuses less on applying the standards through the assessment and approval of applications for environmental authorities and their conditions, and more on monitoring and responding to performance.

Figure 1C
Types of regulatory activities



Source: Queensland Audit Office adapted from the Department of Environment and Heritage Protection, 'Regulatory Strategy' pg. 4

The aim of the current strategy is to promote economic development supported by strong environmental management, with the intended benefit of a quicker approvals process.

In reducing its focus on assessing applications, EHP has committed to an increased focus on effective and targeted compliance activities and a more consistent application of strong but proportional enforcement activities. Its regulatory strategy states:

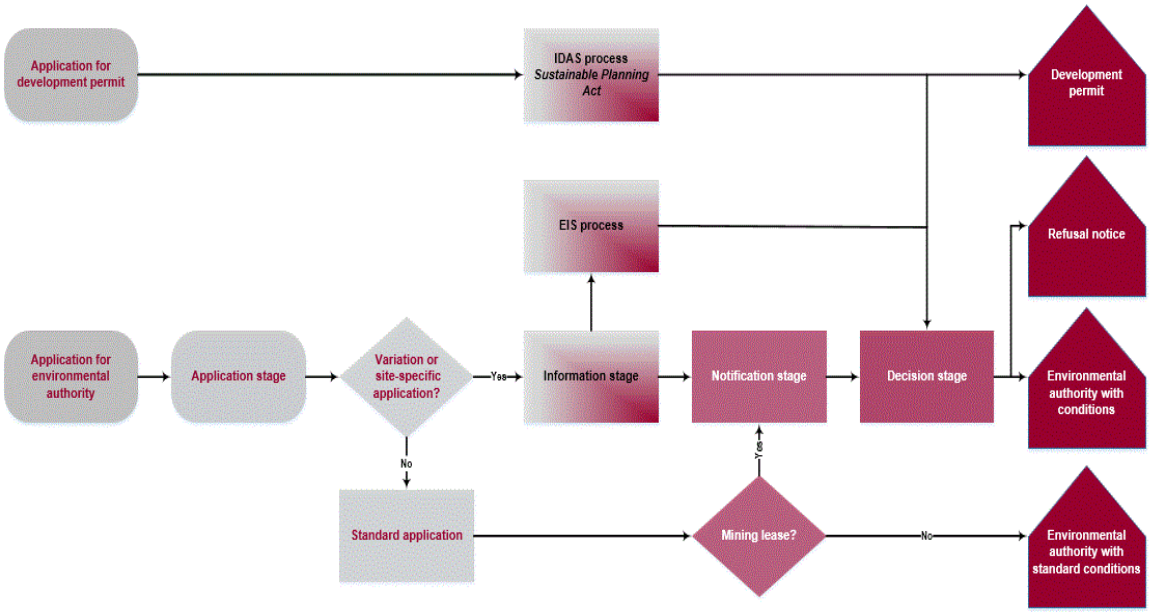
> *Information received by the department as part of an application will be accepted at face value. However if a client is found to have provided inaccurate or misleading information then appropriate enforcement action, including prosecution, may be taken.*

This commitment by EHP recognises the importance of effective supervision, monitoring and enforcement activities in identifying and addressing non-compliance and deterring future non-compliance in the regulated industries.

Process for issuing environmental authorities

Figure 1D shows the current assessment process for environmental authority applications.

Figure 1D
Stages of assessment for environmental authority applications



Source: Adapted from Department of Environment and Heritage Protection

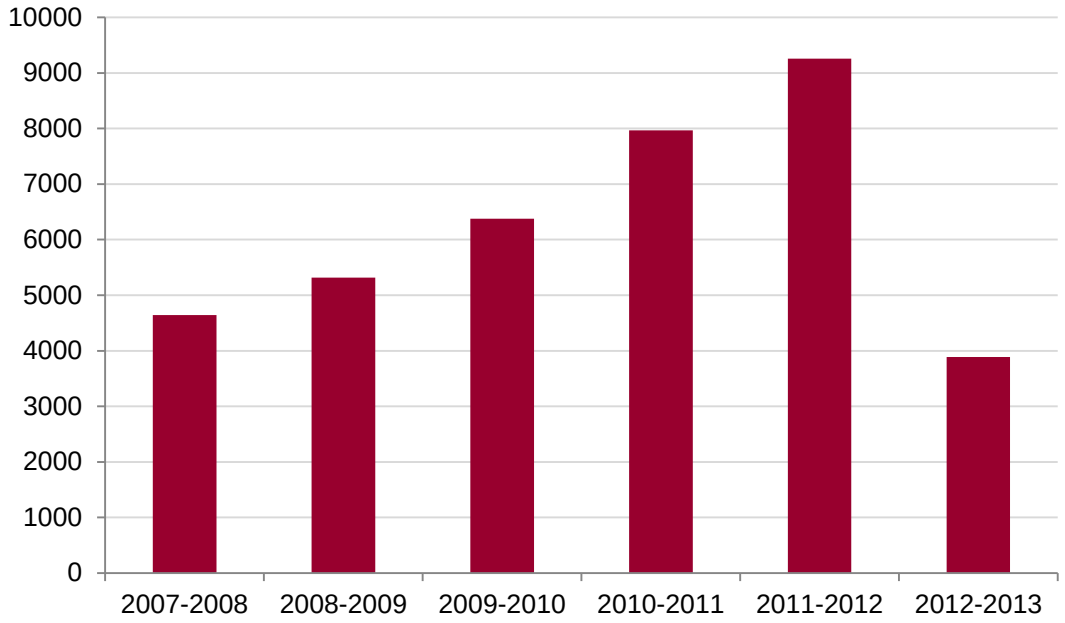
The number of resources environmental authorities administered by EHP increased by 99 per cent from 2007–08 to 2011–12, but has decreased since the introduction of the *Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012*, as would be expected. This is because the legislation allows small operators, such as prospectors, to conduct their operation without the need for an environmental authority.

EHP reported that in 2012–13, the average time taken to assess applications for environmental authorities for the oil and gas industry reduced by 48 per cent, from 50 business days to 29 business days. The time taken to assess all other applications for environmental authorities reduced by 8 per cent, from 39 business days to 36 business days.

EHP regulates fewer environmental authorities now than at any time over the previous five years: 58 per cent less than 2011–12, and 16 per cent less than in 2007–08.

Figure 1E shows the number of current environmental authorities for the financial years from 2007–08 to 2012–13.

Figure 1E
Number of resources industry environmental authorities



Source: Queensland Audit Office from Department of Environment and Heritage Protection data

1.3.3 Financial assurances

EHP may require an environmental authority holder to provide financial assurance under section 292 of the *Environmental Protection Act 1994*. The purpose of financial assurance is to ensure the state holds sufficient funds to:

- prevent or minimise environmental harm or rehabilitate or restore the environment
- promote compliance with an environmental authority or small scale mining tenure.

EHP is responsible for calculating, setting and, where appropriate, revising the amount of financial assurance required from an environmental authority holder. It also has responsibility for assessing success in meeting rehabilitation objectives before accepting surrender of an environmental authority and returning financial assurance to an environmental authority holder.

In all cases other than mining, EHP collects and administers the financial assurance. In the case of mining environmental authorities, NRM is responsible for collecting and administering financial assurance on EHP's behalf. NRM and EHP hold financial assurance as cash, bank guarantees or a combination of both.

1.4 Audit objective, method and cost

The objective of the audit was to determine whether the compliance monitoring, reporting and enforcement of environmental conditions for resource and waste management activities is effective and protects the state from liability for rehabilitation and the environment from unnecessary harm.

The audit examined whether:

- supervision, compliance monitoring and reporting is risk based, timely and effective in ensuring compliance
- enforcement is timely and effective
- financial assurance is effectively used for rehabilitation.

The audit included a follow up on the progress of the Department of Environment and Heritage Protection in implementing the recommendations of *Regulating waste: protecting the environment (*No. 10 of 2011). An assessment of EHP's progress in implementing the recommendations is contained in Appendix B.

In June 2013, the Queensland Competition Authority (QCA) received a Ministers' Direction Notice directing it to investigate and report on the state government's regulation of the coal seam gas industry. The QCA immediately commenced its investigation and, for this reason, coal seam gas was not a specific focus of this audit. Coal seam gas was examined where appropriate to the audit objective and sub-objectives.

The cost of the audit was $470 000.

1.5 Report structure

The remainder of the report is structured as follows:

- Chapter 2—Supervision
- Chapter 3—Monitoring
- Chapter 4—Enforcement
- Chapter 5—Financial Assurance
- Appendix A contains responses received
- Appendix B contains the audit method
- Appendix C contains results of the follow up of the 2011 waste audit
- Appendix D contains EHP inspection data.

2 Supervision

In brief

Background

Strong ongoing supervision supports the effective targeting of strategies, operations and resources to maximise compliance and detect non-compliance. The two departments have different but complementary regulatory roles over the resources industry. Integration, coordination, cooperation and information sharing between the two is important to achieve cost-effective regulatory outcomes.

Conclusions

Poor data management within the Department of Environment and Heritage Protection (EHP) and its failure to maximise use of its and others' data, limits its planning and ability to supervise the resources industry effectively.

Compliance planning by EHP has improved but remains hampered by its own data deficiencies and weaknesses in its supervision of industry. Its compliance planning therefore is less likely to be targeted appropriately and puts at risk the effectiveness of the current strategy that focuses on detection and enforcement.

Data issues mean also that EHP cannot clearly demonstrate its actual performance in achieving its regulatory objectives.

Key findings

- EHP's compliance plans inform the department's inspection program and there is consistency between departmental and regional plans. This is an improvement, but the plans do not have sufficient, relevant performance measures to determine whether plan objectives have been achieved.
- EHP's planning and risk assessments are limited by its own poor data quality, systems and practices and this is compounded by limited information exchange and collaboration with the Department of Natural Resources and Mines (NRM). This hinders EHP's ability to effectively target its strategies, operations and resources to maximise compliance and detect non-compliance.
- EHP supervision of industry through the process of annual returns and collection of fees has not been effective.
    - Some progress has been made in reducing the number of overdue annual returns over the past three years, but EHP does not check these returns for accuracy and it could make much better use of the information from the annual returns it receives.
    - While the overall debt from overdue annual fees has reduced, those overdue by more than 90 days have increased from $5.96 million in October 2012 to $6.12 million in January 2014. The 90-day overdue fees equate to 92 per cent of the total overdue fees.

Recommendations

It is recommended that:

1. **the Department of Environment and Heritage Protection and the Department of Natural Resources and Mines improve the exchange, coordination and accessibility of information to achieve better planning and risk assessments to inform their compliance activities**
2. **the Department of Environment and Heritage Protection pursues enforcement action to recover the long-term debt it is owed from annual fees**
3. **the Department of Environment and Heritage Protection utilises information provided in annual returns to inform its compliance planning and improve its supervision of the industries it regulates.**

2.1 Background

Regulated industries generally consist of a mix of individuals or organisations which:

- will comply in all circumstances
- might comply if presented with incentives, knowledge or capacity to do so
- will not comply unless forced.

Effective supervision allows the regulator to identify and reassess the likelihood of compliance by holders of environmental authorities. This supports effective targeting of strategies, operations and resources to maximise compliance and detect non-compliance.

Government services that rely on the activities of multiple departments require a level of integration, coordination, cooperation and sharing of data and information if they are to deliver outcomes that are effective, efficient and economical. Without this, the risk of duplication of effort, or of the activities of departments hindering rather than complementing each other, is heightened.

We assessed whether the Department of Environment and Heritage Protection (EHP) and the Department of Natural Resources and Mines (NRM) planned their supervision and inspection activities to maximise compliance and detect non-compliance within the resources industry. We expected to find that:

- compliance planning was aligned and integrated and had addressed the findings of the previous audit report
- data used for planning were reliable, complete, accessible, relevant and timely
- risk assessments used all potentially relevant information sources and allowed for appropriate planning and targeting of monitoring activities
- information and resources were shared to coordinate whole-of-government efforts effectively and efficiently in regulating the resources industry
- annual oversight was carried out effectively.

2.2 Conclusions

Compliance planning by EHP has improved, but its planned supervision and monitoring activities are still unlikely either to maximise compliance or to detect all serious non-compliance within the resources industry.

Poor data management and reporting practices within EHP, and between EHP and NRM, limit their ability to supervise the resources industry effectively.

Data is not being well managed, used or shared. These data issues limit the usefulness of environmental risk assessments; weaken compliance planning; and hamper coordination of effort. They mean also that the departments cannot demonstrate clearly their actual performance in achieving their regulatory objectives.

Oversight of annual returns and annual fees has not been effective. At 31 January 2014, EHP was owed overdue annual fees from holders of environmental authorities of $6.66 million and had written off more than $447 000 in the prior twelve months. EHP made considerable effort to reduce outstanding annual fee debts but was unsuccessful, largely because some holders of environmental authorities refused to pay and the long-term debt continues to increase.

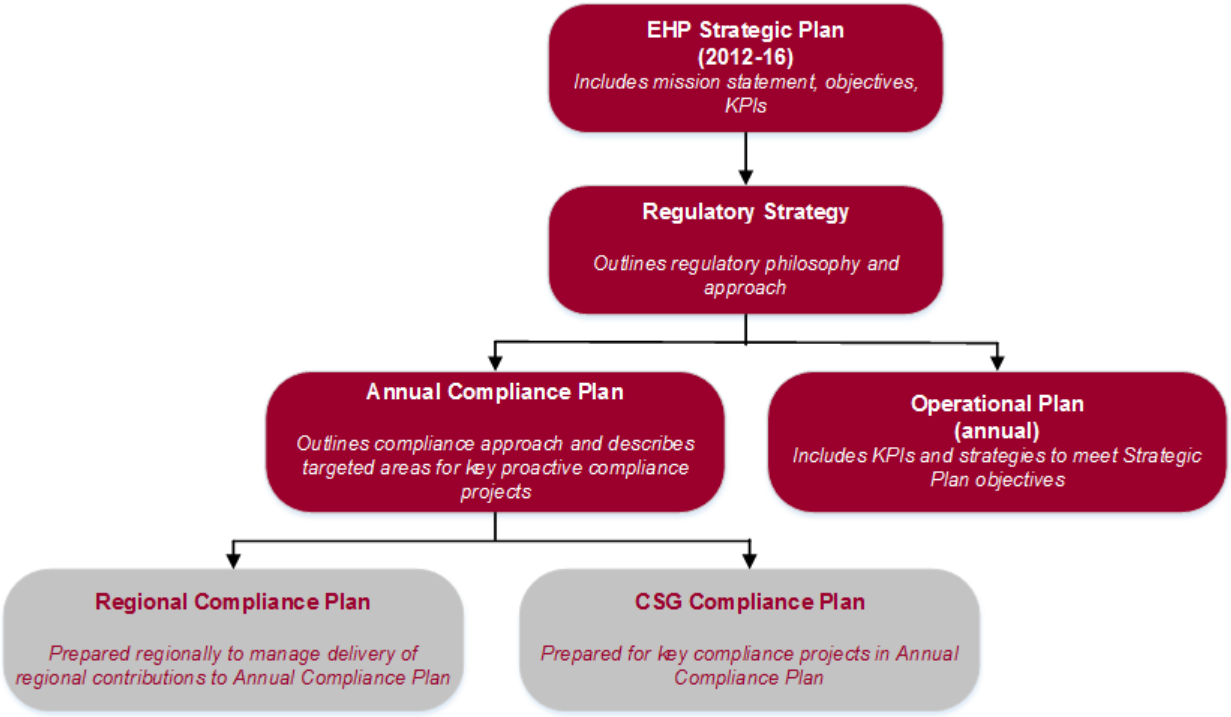
2.3 Compliance planning

It is positive that the design of EHP's compliance planning framework has improved since the release of *Regulating Waste: protecting the environment* (Report 10 : 2011). That report recommended that EHP's predecessor, the Department of Environment and Resource Management (DERM) formalised its methodology to develop compliance plans and monitor the implementation of the compliance plan project recommendations.

EHP's central office now has greater involvement and coordination with its regions in the development of their compliance plans and, as a result, departmental and regional plans are consistent with each other.

Figure 2A shows the relationship of EHP's compliance plans.

Figure 2A
EHP compliance planning



Source: Queensland Audit Office

EHP implements its proactive inspection program through its statewide annual compliance plan and a specific compliance plan for coal seam gas and liquid natural gas. Each region contributes to the development of the annual compliance plans. After annual compliance plans are finalised, the regions develop implementation programs in the form of regional compliance plans. From these plans, departmental and regional compliance priorities are established and documented.

EHP aligns priorities to industry activities identified as high risk for non-compliance or with the potential to cause environmental harm; for example, EHP's 2012–13 annual compliance plan had fifteen proactive compliance projects. Four of these projects focused on mining and licensed waste operators. EHP's compliance plans have few performance measures and targets, which makes it difficult for EHP to determine its success in achieving its objectives.

2.4 Data quality

While EHP's planning processes have improved since 2011, it remains constrained by the quality of its own data, which are unreliable, inaccessible and often incapable of providing timely and quality information to inform decisions. This is due to:

- poor and inconsistent information collection and recording practices
- a lack of staff trust and confidence in the Ecotrack database
- staff using different means for storing information, resulting in information being dispersed and there being no single point of truth.

EHP's data collection and record keeping practices and systems rely too much on paper files held in regional offices. Staff members do not record information routinely in a consistent, reliable or accessible way and the information that should be in the Ecotrack database is spread across a variety of other systems, including:

- paper files
- electronic and printed spreadsheets
- individual electronic folders in various computer drive locations.

This makes information difficult to find and compromises trust in the accuracy and reliability of information held in Ecotrack. Using multiple ways to store information is also inefficient as time is used manually locating, cleansing, clarifying and verifying information before it can be used.

EHP's intelligence unit does monthly intelligence assessments to provide data and trend analyses to regional staff and management and to identify current and emerging issues. The focus of these assessments is on coal seam gas and liquid natural gas activities but it also undertakes some analysis of other EHP areas of responsibility. While the same data issues hamper these assessments, the intelligence unit has had limited success in improving awareness within EHP of the need for improved data and performance reporting practices. As one example, while trying to validate data with regions, the intelligence unit identified that some information had not been entered into the Ecotrack database. This resulted in the regions retrospectively entering the information into Ecotrack.

EHP's performance reports and intelligence assessments demonstrate that staff lack confidence in data from Ecotrack. Authors of these reports and assessments regularly note their concerns with comments such as '*there is little information available on Ecotrack relating to these non-compliances*' and '*analysis has been conducted on data from Ecotrack and therefore there are limitations on whether all records have been entered and are correct*.'

On 20 September 2013, EHP received approval and funding to progress the first stage of an information technology solution to Ecotrack, under the department's compliance renewal program. EHP advised that the first stage was completed in November 2013 and included development of a business case review and cost benefit analysis, which will form part of a submission to government.

A key objective of the compliance renewal program is to simplify the department's processes while improving compliance enforcement and to improve performance management and reporting.

The business case review identified that there is duplication of effort by EHP with the processing of applications; and poor data recording and capacity by the Ecotrack system. It identified administrative, operational and information technology savings of $3.1 million per annum by 2017–18, with 38 fewer full time equivalent staff positions.

The limitations of the Ecotrack system has been a major causal factor on EHP's capacity to monitor and report on its own effectiveness in regulating the environment.

2.5 Risk assessments

Approximately three per cent of resources industry sites have site-specific (level 1) environmental authorities; and 97 per cent have environmental authorities with standard conditions or variations to standard conditions (level 2). The site-specific environmental authorities tend to be larger sites and have greater scale of environmental disturbance than level 2 sites.

Regulators use risk assessments to identify operators and activities that present a high likelihood of non-compliance or harm, allowing the regulator to use its limited resources more effectively by targeting inspection of those activities and operators that pose a high risk.

EHP's risk assessments are not fully effective because:

- risk assessments are based on local judgements rather than by applying a consistent framework
- assessments are not using valuable information held across the public sector that is relevant to risk, in particular:
  - EHP does not coordinate its risk analysis with NRM
  - operators' financial performances, that may indicate higher risk, are not being considered
- late and missing annual returns restrict timely access to relevant risk data.

2.5.1 Risk assessment tool

EHP's risk assessment tool is used annually by its regions to assess mainly level 1 resource and waste activities and plan their regional inspection programs. EHP had already classified these sites as high risk by applying a level 1 environmental authority; however, the risk assessment tool is unable to further prioritise the risk—instead, it reaffirmed sites as high risk.

As there are not enough regional resources to enable annual inspections of all level 1 sites, staff members use their judgement and knowledge to revise the risk assessments and determine the inspection programs. There is no departmental guidance, nor are there criteria or consistency across the regions.

2.5.2 Data held by others relevant to compliance risk

EHP does not draw on the broad range of useful information held by other public sector agencies, including NRM and Queensland Treasury and Trade, further limiting the efficacy of its risk assessments.

Risk assessments by NRM

EHP and NRM hold useful information on the same operator and activities but they do not share, or are not aware of, the information each other holds. Both EHP and NRM conduct risk assessments for resource activities but they do not share or use information about environmental authority holders who fail to comply with safety standards, administrative requirements, financial obligations or environmental conditions.

The exchange of information is difficult because EHP uses environmental authority numbers as a primary reference for an operator and its activities, whereas NRM uses mining lease numbers as a reference for the same operator and its activities. They do not systematically cross-reference these identifiers and there is no single point of reference between the two departments. This makes otherwise simple activities difficult, such as checking financial assurance held by NRM on behalf of EHP. We found that regional EHP staff did not know whether financial assurance required for environmental authorities they regulated had been requested and received by NRM and, if so, the amount held. In one case, there was confusion between NRM and EHP as to which department held $148 480 of financial assurance that had been forfeited to the state.

Figure 2B identifies basic information from EHP and NRM that can assist in building a better profile of site non-compliance.

Figure 2B
Combined EHP and NRM information

Operator	EHP enforcement actions	EHP complaints and incidents	NRM complaints and incidents	NRM compliance actions	EHP debt $	NRM debt $
1	3	1	277	32	Nil	Nil
2	6	2	127	219	Nil	115 868
3	13	2	138	118	61 824	1 217 160
4	2	0	5	0	56 039	2 550

Source: Queensland Audit Office based on data from EHP and NRM

Lack of information sharing affects the quality of risk assessments, planning and resource allocation of the two departments and thus the monitoring and reporting each conducts. As a result, decision making and planning is not fully informed by all available information. This affects the efficient and effective use of limited resources and planning of inspections. Because the departments develop their inspection programs independent of each other and do not share their programs, they are not coordinating their inspections of the same sites.

Financial performance data held by NRM

NRM conducts company checks when renewing leases. Small companies are required to show that they have the resources, financial capacity and technical skills to continue mining. EHP does not take into account the information obtained by NRM on the financial performance of a site or operator in its risk assessment procedures. This is significant, given EHP's change in regulatory approach and that financial failure of operators is often the cause of non-compliance and transfer of environmental rehabilitation liability to the state.

We used debt and financial assurance information held by both EHP and NRM and identified 74 resource operators owing debts for periods longer than 90 days to both EHP and NRM. There were 51 operators with combined debts to EHP and NRM that exceeded the amount of financial assurance held by the state by $1.67 million. EHP and NRM do not do this type of analysis. Although EHP cannot use financial assurance for recovery of debts, it could use this information to identify operators that present an increased risk of non-compliance with their rehabilitation obligations.

2.6 Annual oversight

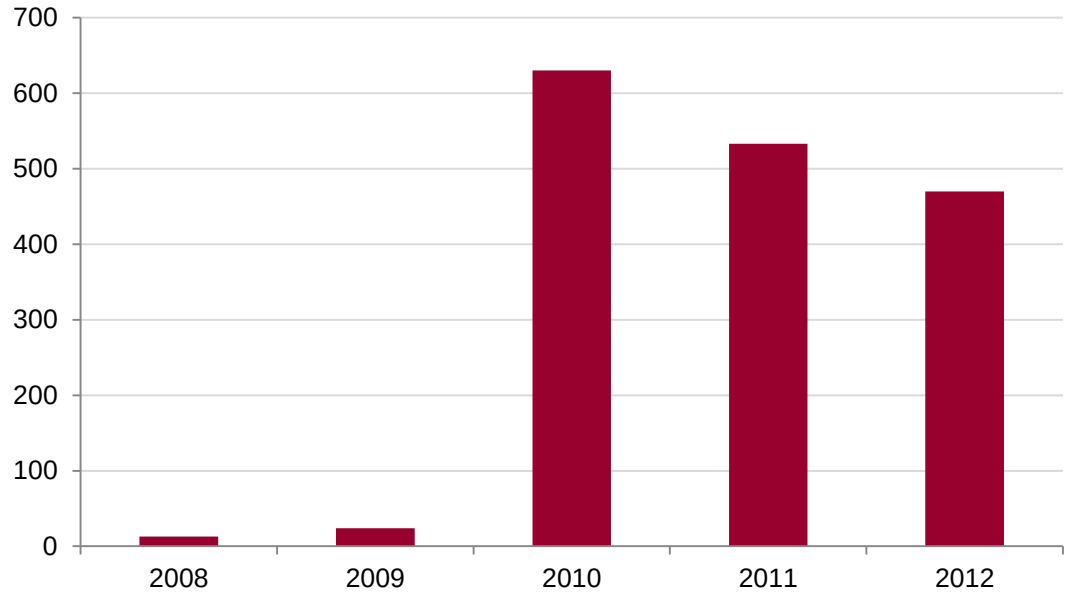
2.6.1 Annual returns

Holders of environmental authorities must lodge an annual return that describes their activities over the year, such as disturbance, rehabilitation, emissions, water management and waste management. The annual return must also detail the holder's compliance with the conditions of the environmental authority and any non-compliance.

EHP's management of overdue annual returns was raised in *Regulating waste: protecting the environment* (Report 10 : 2011). EHP have made some progress over the past three years in reducing the number of overdue annual returns, but is not using effectively the information from the annual returns it receives.

Figure 2C shows that the number of overdue annual returns has reduced by 25 per cent since the 2010 calendar year.

Figure 2C
Overdue annual returns 2008 to 2012 calendar years



Source: Queensland Audit Office from Department of Environment and Heritage Protection data.

The increase in recorded overdue annual returns from 2009 to 2010 was due to a program EHP ran to quantify outstanding annual returns; prior to this, there was no systematic recording of overdue annual returns.

While the number of outstanding annual returns reduced from 10 per cent of all environmental authorities in 2010 to five per cent in 2012, a consequence of holders not submitting annual returns is that valuable information to guide monitoring and compliance planning decisions is not available to EHP.

The failure of an operator to comply with requirements to submit an annual return should raise concerns and trigger a reassessment of the risk profile of the holder and site; at present, it does not. This raises the risk that non-compliance with environmental conditions is going undetected.

EHP does not assess or audit annual returns routinely to determine the accuracy of the information provided. EHP could do this by:

- reviewing information provided in annual returns following the identification of non-compliance during site inspections
- annual desktop audits of some holders, including requiring them to submit the monitoring data and reports they are required to maintain under their environmental authority conditions
- physical inspection of a sample of sites based on the results of desktop audits.

This would provide EHP with:

- a useful way to use annual returns without affecting its limited resources
- a proactive means of gauging compliance levels
- coverage of level 2 sites
- an opportunity to take action against environmental authority holders who provide false or misleading information in their annual returns
- a deterrent to holders providing false or misleading information in annual returns, or more broadly not complying with environmental authority conditions.

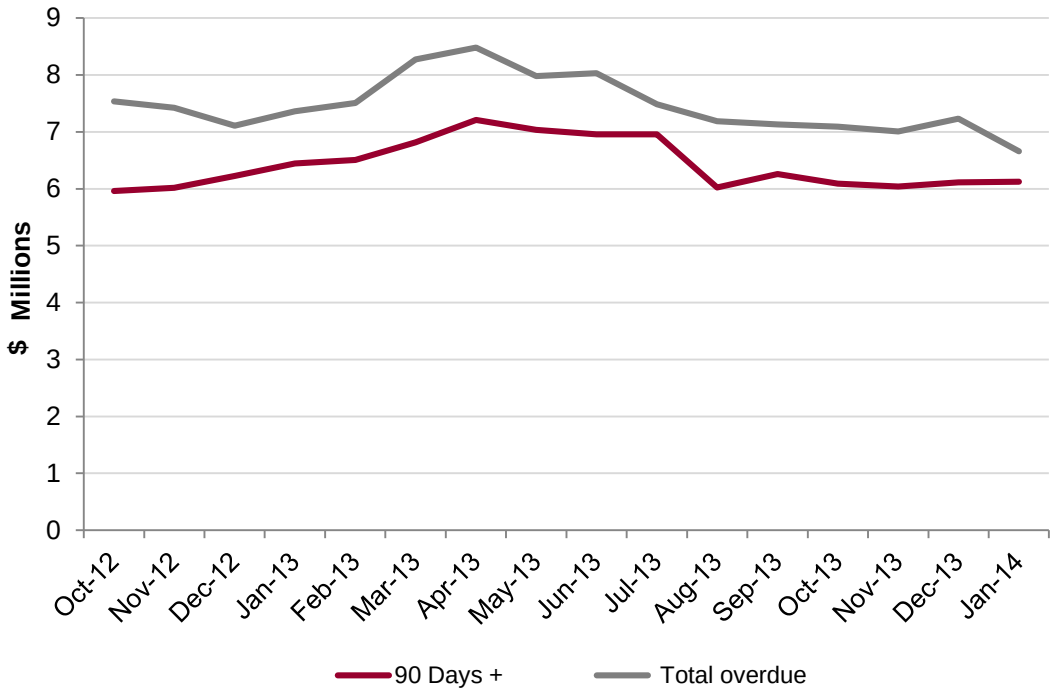
In the absence of such checks by EHP, there is a risk that operators are simply 'ticking the compliance box' on annual returns.

2.6.2 Annual fees

The *Environmental Protection Act 1994* requires environmental authority holders to pay an annual fee based on the area of environmental disturbance caused by their activities.

We raised the issue of overdue annual fees in our report, *Regulating Waste: protecting the environment* (Report 10: 2011). In 2011, EHP's predecessor, DERM estimated it did not collect or invoice $6.51 million in annual fees. As of 31 January 2014, the estimated amount of annual fees overdue by more than 90 days was $6.12 million. This was a $161 329 increase over the past 15 months, despite EHP's effort to reduce the debt. Figure 2D shows debt trends from October 2012 to January 2014.

Figure 2D
Overdue annual return debt October 2012 to January 2014



Notes: The increase in March and April 2013 was due to a decision by EHP to suspend debt recovery actions for three months for local government areas affected by the January 2013 natural disasters.

Source: Department of Environment and Heritage Protection, January 2014

EHP commenced a project in November 2012 to reduce outstanding annual fee debts. This has been largely unsuccessful. EHP discontinued the project because it determined the premise of the project, to recover debt and provide a deterrence, was unsound. This was because, within the debtor group, there were debtors who were no longer operating and others who refuse to pay the amount claimed by EHP because the holder disagreed with the fee threshold into which they were placed.

The project involved sending 103 letters to holders of environmental authorities with outstanding fees. The intention was to use suspension or cancellation of environmental authorities as a deterrent to other debtors. Through this exercise, EHP determined that a number of holders had ceased operations without EHP's knowledge and that others who were still operating disputed the amount of the debt. Prior to this project, EHP had not taken action to address the outstanding annual returns or fees.

A further 'data cleanse' from October to December 2013 identified more environmental authorities with outstanding annual fees. These have since been invoiced.

In early 2013, EHP reassessed its plan of issuing notices of intention to suspend the permits of debtors. It decided that this would not deliver the deterrent outcome the project originally intended, although the basis of this decision was not documented. The project then refocused on collecting debts from holders who owed more than $50 000.

EHP issued 191 notices of proposal to suspend or cancel environmental authorities. It subsequently cancelled four environmental authorities and suspended 95.

The total outstanding annual fee debt decreased from $7.54 million in October 2012 at the commencement of the project to $6.66 million in January 2014. But this includes $447 695 in overdue debts written off by EHP in 2013 after consultation with Queensland Treasury and Trade. The debt at January 2014 would have been more than $7.14 million without the write off.

While the remaining overall debt has reduced marginally, the value of those debts overdue by more than 90 days has increased from $5.96 million in October 2012 to $6.12 million in January 2014. The 90-day overdue fees equate to 92 per cent of the total overdue fees and there is value to the state in EHP focusing on collecting fees outstanding for more than 90 days.

Improved and ongoing fee and debtor management will reduce costs associated with administering and recovering debts. The annual cost of the debt management team is currently estimated at $454 000 per annum.

If annual returns had been scrutinised more thoroughly, EHP would have detected earlier that there were operators who were no longer trading. EHP advised it is investigating ways of identifying and removing false debt due to incorrectly invoicing holders who have ceased operations.

2.7 Recommendations

It is recommended that:

1. **the Department of Environment and Heritage Protection and the Department of Natural Resources and Mines improve the exchange, coordination and accessibility of information to achieve better planning and risk assessments to inform their compliance activities**
2. **the Department of Environment and Heritage Protection pursues enforcement action to recover the long-term debt it is owed from annual fees**
3. **the Department of Environment and Heritage Protection utilises information provided in annual returns to inform its compliance planning and improve its supervision of the industries it regulates.**

3 Monitoring

In brief

Background

In its regulatory strategy, the Department of Environment and Heritage Protection (EHP) committed to increasing the amount of time it spends on monitoring industry performance and compliance, as it reduces the amount of time spent on assessing applications. Well planned monitoring will identify non-compliance and reduce the risk of harm to the environment.

Conclusions

EHP needs to further strengthen its monitoring program if it is to meet its commitment in its new regulatory strategy and improve industry compliance. Until this occurs, its monitoring activities are less likely to be an effective deterrent to non-compliance.

Despite the net increase in inspections, there is little evidence to demonstrate that EHP's monitoring is timely, appropriately risk-based or effective in detecting non-compliance. As was the case for its planning and supervision, this is largely because of weaknesses in EHP's data management systems, including monitoring data that are incomplete and unreliable.

Because EHP and the Department of Natural Resources and Mines (NRM) do not coordinate their efforts, both departments' coverage of the resources industry is unnecessarily constrained.

Key findings

- EHP increased the number of inspections of resource activities between 2008-09 and 2012-13 by 88 per cent, mainly due to more proactive inspections. This corresponded with a 99 per cent increase in environmental authorities between 2008-09 and 2011-12, followed by a 59 per cent decrease in 2012-13. Because EHP's data practices do not capture this information or site details well, its inspections data do not allow for a reliable indication of compliance levels or of the coverage of its monitoring across the resources industry.
- EHP does not do periodic or systematic risk assessments or inspections of those sites that have standard conditions applied or standard conditions with variations. It inspects such sites only if it receives a complaint or incident notification. It does not know whether the actual risk posed by the majority of these sites has changed from the original determination.
- EHP's Ecotrack data indicate that, from 2008-09 to 2012-13 EHP increased the number of inspections of all types—level A, B and C.
    - Between 2011-12 and 2012-13, since the introduction of the current regulatory strategy, the numbers of level A and level B inspections have decreased and the number of level C inspections increased.
    - EHP cannot demonstrate whether there has been an increase in the amount of time it spends monitoring industry performance and compliance.

Recommendations

It is recommended that:

4. the Department of Environment and Heritage Protection implements a program to proactively monitor compliance with environmental authorities with standard conditions and variations to standard conditions.

3.1 Background

An effective compliance monitoring program will successfully detect major non-compliance. A high detection rate of non-compliance, if supported by effective enforcement, should lead to increased industry compliance.

This is the regulatory model the Department of Environment and Heritage Protection (EHP) has adopted under its current regulatory strategy. As part of that strategy, EHP committed to increasing the amount of time it spent on monitoring industry performance and compliance, as it reduced the amount of time it spent on assessing applications.

Inspections are a means for regulators to monitor compliance with environmental conditions. The purpose of inspections is to:

- gather information to determine a site's compliance status
- identify any specific environmental problems
- inform the environmental authority holder of any non-compliance or environmental problems
- collect evidence for enforcement action
- ensure the quality of self-reported information
- demonstrate the government's commitment to ensuring compliance
- check that previously identified non-compliance has been addressed.

We assessed whether the compliance monitoring of environmental conditions for resource activities are risk-based, timely and effective in detecting non-compliance. We expected to find:

- proactive and reactive monitoring to routinely and consistently check operator compliance with conditions of environmental authorities
- shared information and resources to effectively and efficiently coordinate whole-of-government efforts in monitoring the environmental conditions
- non-compliance was being detected.

3.2 Conclusions

EHP needs to further strengthen its monitoring program if it is to meet its commitment in its new regulatory strategy and improve industry compliance. Until this occurs, its monitoring activities are less likely to be an effective deterrent to non-compliance.

EHP increased its monitoring of the resources industry from 2008-09 to 2012-13 by conducting more inspections, with a greater proportion of the more comprehensive level C inspections. This increase came at a time when the number of environmental authorities increased, apart from 2011-12 to 2012-13 when the green tape reduction legislation reduced the number of level 2 environmental authorities. EHP however has no program for inspecting level 2 sites, which make up 97 per cent of all resources industry sites.

Despite the net increase in inspections, there is little evidence to demonstrate that EHP's monitoring is timely or is appropriately informed by changing risk considerations. This is largely because of weaknesses in EHP's data management systems relating to monitoring data, which are incomplete and unreliable.

It does not report the number or percentage of its inspections that detected non-compliance and we found little evidence to demonstrate that EHP is effective in detecting non-compliance, other than in response to public complaints or industry reported incidents.

Because EHP and the Department of Natural Resources and Mines (NRM) do not coordinate their efforts, both departments' coverage of the resources industry is unnecessarily constrained. Individually, the resources each department has are limited; by cooperating and coordinating their efforts, they would have a greater regulatory influence on the industry.

3.3 Inspections

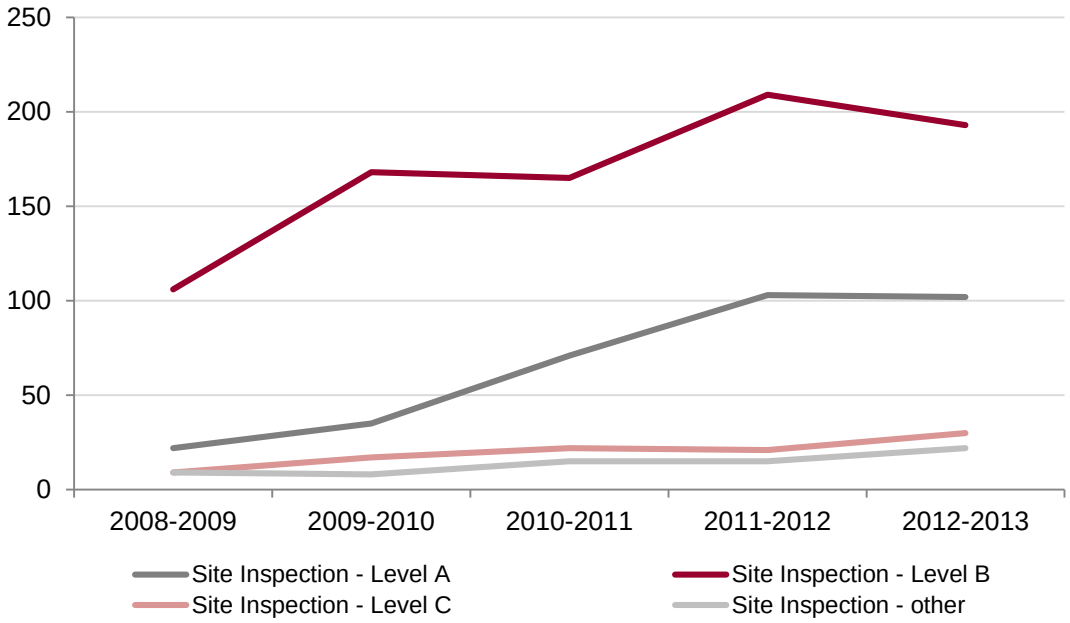
3.3.1 Inspection levels

EHP categorised its inspections into three levels:

- **Level A** or basic inspections—the lowest level of compliance inspections which tend to be targeted at a specific environmental issue and which involve non-complex and low risk sites. These inspections may comprise a quick visual check of a site or a more detailed assessment of only a portion of the site operations. Level A inspections can also be to establish compliance following enforcement actions taken by EHP.
- **Level B** or condition inspections—generally the most common level of site inspections undertaken and which assess the environmental authority holders' performance against approved conditions. Level B inspections may also include assessment of other documentation, such as site based management plans and involve the taking of samples.
- **Level C** or audit inspections—the highest and most detailed level of compliance assessments. These inspections are pre-planned and scoped, may involve other experts and examine compliance with all aspects of environmental authorities and the broader legislation. Level C inspections usually include taking samples or records of onsite monitoring to determine environmental impacts.

Figure 3A shows the level of inspections conducted by EHP from 2008-09 to 2012-13.

Figure 3A
Level of EHP inspections conducted



Source: Queensland Audit Office based on data from Ecotrack

EHP's Ecotrack data indicate that, from 2008-09 to 2012-13, EHP increased the number of inspections for all levels. The greatest increase was in level A (basic) inspections, which grew by 364 per cent, from 22 to 102 inspections during this period. Level C inspections, which are the most comprehensive, increased by 200 per cent from 10 to 30 inspections.

Appendix D show EHP's inspections by region, type and level from 2010-11 to 2012-13.

3.3.2 Initial inspections

EHP conducts both proactive and reactive inspections to monitor compliance with conditions of environmental authorities by operators in the resources and waste industries. Proactive monitoring is determined through annual compliance plans developed centrally and at regional office level. Reactive monitoring involves responding to complaints and incidents, usually from the public, landowners or reports from other departments such as NRM.

Between 2008–09 and 2012–13, EHP increased the total number of inspections of resource activities by 121 (88 per cent). Figure 3B shows the number of resource industry inspections each year for the period 2008-09 to 2012-13.

Figure 3B
Number of proactive and reactive initial inspections by region

Regions	Inspection type	2008–09	2009–10	2010–11	2011–12	2012–13
Central	Proactive	18	21	45	66	58
	Reactive	7	10	7	4	6
North	Proactive	53	83	46	35	58
	Reactive	37	22	23	21	8
South	Proactive	18	74	59	118	73
	Reactive	5	4	16	17	56
Total	**Proactive**	**89**	**178**	**150**	**219**	**189**
	Reactive	**49**	**36**	**46**	**42**	**70**
Combined total		**138**	**214**	**196**	**261**	**259**

Source: Queensland Audit Office based on data from Ecotrack

EHP's proactive compliance monitoring had increased by 146 per cent in 2012–13 from 2008–09 levels. This increase coincided with a 99 per cent increase in environmental authorities issued over the same period.

However, proactive inspections fell by 14 per cent from 2011–12 to 2012–13, coinciding with a 59 per cent decrease in the number of environmental authorities. This indicates that EHP's regulatory strategy, introduced in December 2012, is yet to increase the rate of proactive monitoring of the industry.

In its strategy, EHP committed to its monitoring being targeted and stated that:

> *The department will increase the amount of time it spends monitoring client performance, as it reduces the amount of time it spends assessing applications.*

The 59 per cent decrease in environmental authorities issued was due to green tape reduction legislation, which no longer requires small operators, such as prospectors, to obtain an environmental authority. The environmental authorities issued to these small-scale operators were standard condition (level 2) authorities, which EHP does not proactively monitor. This means that most of the 14 per cent decrease in proactive inspections is for sites with site-specific environmental authorities (level 1).

EHP's inspections data do not allow for a reliable indication of the coverage of its monitoring across the resources industry. Some inspections may cover multiple environmental authorities and in other cases, an environmental authority may cover multiple sites. EHP's database does not capture this information or site details well.

EHP's proactive monitoring was limited by:

- available staff and resources
- its ability to identify emerging risks and trends
- the complexity of issues
- the number and geographic dispersal of regulated sites.

EHP does not do periodic or systematic risk assessments or inspections of level 2 sites, unless it receives a complaint or incident notification. Therefore, it does not know the actual risk posed by the majority of these sites. Level 2 sites can present a risk to the environment despite their lower risk rating.

Case study 1

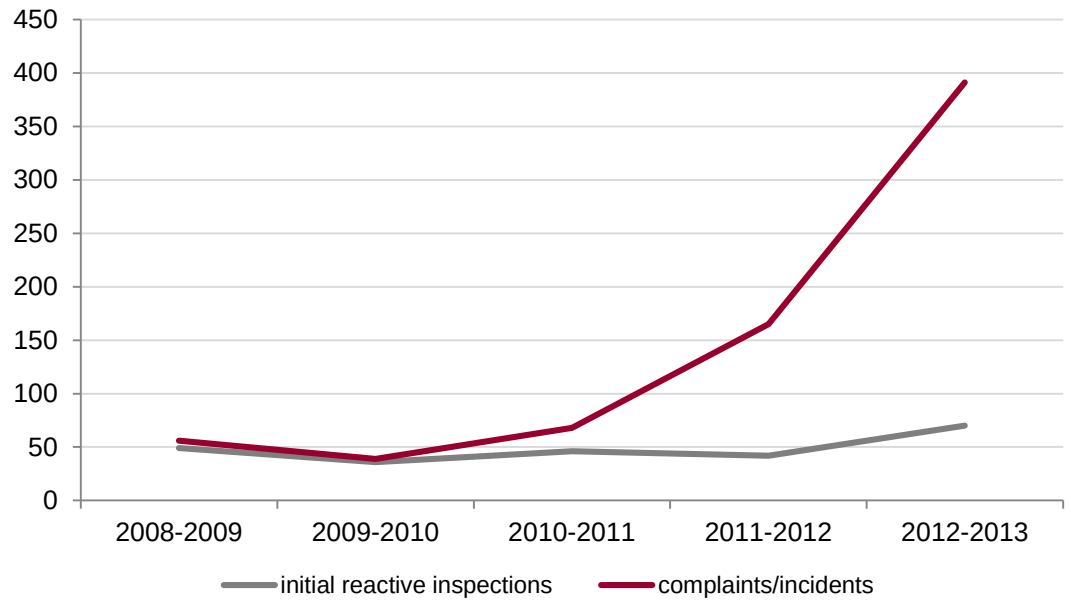
Environmental and regulatory issues at a level 2 resources site
In January 2004, EHP's predecessor, the Environmental Protection Authority, received a complaint about a gold mine located in its northern region and the death of cattle. Its investigation found ten cattle killed by release of cyanide from a tailings dam at the site resulting in downstream contamination. The landowner later found a further 18 dead cattle. Six months later (June 2004), the Environmental Protection Authority inspected a new catchment dam installed downstream from the tailings dam. There was no fence installed and an environmental protection order (EPO) was issued in August 2004 to install a fence and to provide bunding for diesel and fuel across the site. At the same time, the Environmental Protection Authority issued a penalty infringement notice for non-compliance with an environmental authority condition (compliance with cyanide code). The financial assurance held by the state for this site was $6 890, but the Environmental Protection Authority reassessed it to $48 398 and required the environmental authority holder to increase the financial assurance. In March 2005, the Environmental Protection Authority suspended the environmental authority because the additional financial assurance was not lodged. Five years later, in 2010, EHP's predecessor, the Department of Environment and Resource Management inspected the site and found rubbish and unapproved infrastructure on the site. The department required the removal of regulated waste and reshaping of excavated areas. Twelve months later, in August 2011, the department reinspected the site. A further 11 months elapsed before EHP issued an environmental protection order in July 2012 to clean up the site. EHP's follow up inspection in November 2012 found non-compliance with six of the seven requirements of the environmental protection order. EHP issued a new environmental protection order and penalty infringement notice in January 2013 for non-compliance with the previous order. It conducted a further inspection in June 2013 and found further non-compliances with the order. The site has been in care and maintenance for about the last five years and EHP still only holds the $6 890 financial assurance, despite estimating rehabilitation at $48 398. Environmental rehabilitation has not occurred.

Source: Queensland Audit Office based on EHP records

Figure 3C shows the number of complaints/incidents reported to EHP and the number of initial reactive inspections from 2008-09 to 2012-13.

The number of incidents and complaints increased by 598 per cent over this five-year period. The rise in complaints was due in part to expansion of activities in the coal seam gas and liquid natural gas industry.

Figure 3C
Number of complaints/incidents and number of reactive initial inspections



Source: Queensland Audit Office based on data from Ecotrack

During this period, EHP's initial reactive inspections of incidents and complaints increased by 43 per cent. Not all complaints require an inspection because single suspected non-compliance issues may result in complaints from multiple sources; however, EHP's data do not allow for accurate and reliable matching of inspections with complaints. Without manually validating and cross-referencing data with hardcopy files, it is not possible to establish whether EHP is inspecting all complaints and incidents that warrant an inspection.

Reactive monitoring—responding to complaints and incidents—limits EHP's ability to prevent environmental harm. In such cases, EHP must focus on stopping further harm and containing and reducing the damage that had already occurred. However, the effects of non-compliance may not be evident or traceable to its source for some time after the non-compliance occurred with risk of longer exposure of harm to the environment and therefore potentially greater damage.

3.3.3 Follow-up inspections

Where initial inspections identified non-compliance, EHP needs to do a subsequent inspection to verify that the issue has been adequately addressed. Some initial inspections may require multiple follow-up inspections, depending on the non-compliance issue identified and the extent of any associated environmental harm.

Figure 3D shows the number of follow-up inspections of resources industry environmental authorities per year for the period 2008-09 to 2012-13.

Figure 3D
Number of follow-up inspections by region

Regions	Inspection Type	2008-09	2009-10	2010-11	2011-12	2012-13
Central	Proactive	1	0	2	9	1
	Reactive	0	1	3	4	2
North	Proactive	6	8	28	16	19
	Reactive	1	2	13	15	13
South	Proactive	0	1	17	28	38
	Reactive	0	2	14	15	15
Total	**Proactive**	**7**	**9**	**47**	**53**	**58**
	Reactive	**1**	**5**	**30**	**34**	**30**
Combined total		**8**	**14**	**77**	**87**	**88**

Source: Queensland Audit Office based on data from Ecotrack

Total follow-up inspections increased from eight in 2008-09 to 88 in 2012-13. The biggest increase has been in EHP's southern region, which accounted for 60 per cent of the follow-up inspections done in 2012-13.

While the increase in follow-up inspections is a positive trend, in some cases multiple follow-up inspections are conducted in relation to an initial inspection. This means there are fewer environmental authorities or sites inspected than follow-up inspections. For this reason, inspection numbers alone do not provide a reliable indication of the industry coverage by EHP's compliance monitoring activities.

With no proactive inspection program for level 2 sites, some are never inspected. EHP relies on complaints from landowners and the public, or self-reporting from operators to identify non-compliance and environmental harm. EHP does not know the level of compliance or the need to modify its assessments and monitoring at these sites.

Furthermore, EHP does not scrutinise information provided in applications under its current regulatory strategy, instead accepting information on face value. EHP has no processes in place to ensure applicants do not incorrectly apply for environmental authorities with standard conditions (level 2) when their operations should require variations or site-specific conditions (level 1).

There is a risk that, over time, some smaller operations could become larger and require site-specific environmental authorities (level 1) without being detected. Because EHP has no proactive inspection program for level 2 sites, an incorrectly classified site is unlikely to be detected unless a complaint or incident is reported.

3.4 Certified auditors

As part of its compliance renewal program, EHP advised it was considering developing a framework to engage suitably qualified environmental auditors to assist with and enhance its inspections. At the time of the audit, the project to develop the certified environmental auditor framework had not been approved or funded.

If progressed and developed appropriately, this project could allow EHP to harness private sector expertise, expand its monitoring program and make more efficient use of its resources. There are risks to independence and conflict of interest which will need to be considered in the development of such a framework and actively managed in any future engagement of external certified auditors.

3.5 Recommendations

It is recommended that:

4. **the Department of Environment and Heritage Protection implements a program to proactively monitor compliance with environmental authorities with standard conditions and variations to standard conditions.**

4 Enforcement

In brief

Background

Enforcement is effective as a deterrent when non-compliance is detected, responses are swift and predictable, sanctions are appropriate and operators know that these elements are present.

Conclusions

EHP's enforcement actions are generally proportionate and commensurate to circumstances. That said, its enforcement actions are not always timely or effective in achieving compliance by operators and environmental outcomes are not reported.

Its enforcement data are unreliable and not easily analysed to determine compliance levels and it does not record, analyse and report its enforcement activities on an industry basis.

Key findings

- EHP does not know the effectiveness of issuing penalty infringement notices as an enforcement tool in the resources industry, because of its poor data and its inability to isolate notices issued to the resources industry from the other industries it regulates.
- EHP commences prosecutions as a last resort and these are usually successful. However, it does not always capture the full costs of its prosecutions, such as costs of investigations and misses the opportunity to recover these costs through the courts.
- EHP does not systematically link its inspections data with its enforcement data to identify the percentage of inspections where non-compliance issues are found. Where it has tried to do this, it has found that a third of the sites it proactively inspected were compliant, a third were non-compliant and its data were inadequate to determine whether the site was compliant or not in the remaining third.
- EHP's quarterly performance report for the first quarter of 2013–14 shows that it did not meet its target that 60 per cent of sites were found compliant during follow-up inspections, instead finding 37 per cent of facilities were compliant. This result included all industries regulated by EHP so it was not possible to distinguish its performance in relation to the resources and waste industries.

Recommendations

It is recommended that the Department of Environment and Heritage Protection:

5. **captures and recovers the full cost of investigating and prosecuting all non-compliance cases**
6. **improves its performance measurement and reporting to demonstrate the effectiveness of its activities in achieving environmental outcomes.**

4.1 Background

Effective enforcement can deter non-compliance by creating negative consequences for operators who breach environmental conditions and cause harm. For deterrence to be effective, there must be:

- a high likelihood these operators will be detected
- swift and predictable responses to non-compliance and environmental harm
- responses that include appropriate sanctions
- a perception among operators that all these elements are present.

The Department of Environment and Heritage Protection (EHP) details its approach to enforcement in its regulatory strategy as:

> *For those industry members who choose not to comply with their obligations, the department will be consistent in taking prompt, strong enforcement action. This enforcement will provide assurance to the vast majority of industry members that do act responsibly and meet their environmental obligations that the department is consistently dealing with those who do not.*

EHP has a variety of enforcement tools at its disposal to address non-compliance with environmental conditions when it is detected. These range from warnings (verbal or written), penalty infringement notices, management programs, statutory orders and prosecutions. These actions are designed to educate, penalise and deter industry non-compliance.

An environmental authority holder can enter voluntarily, or EHP can require the holder to enter a management program to deal with non-compliance or environmental harm. A court may issue statutory orders on application from EHP and require an environmental authority holder to take specified actions to address non-compliance or environmental harm.

We assessed whether the enforcement of environmental conditions for resource and waste activities was appropriate, timely and effective in ensuring compliance.

4.2 Conclusions

EHP's enforcement actions are generally proportionate and commensurate to circumstances. However, its enforcement actions are not always timely or effective in achieving compliance by operators, and environmental outcomes are not reported.

As a result, EHP is unable to demonstrate that its enforcement activities improved compliance levels with environmental conditions. This is because its enforcement data are unreliable and not easily analysed to determine compliance levels and it does not record, analyse and report its enforcement activities on an industry basis.

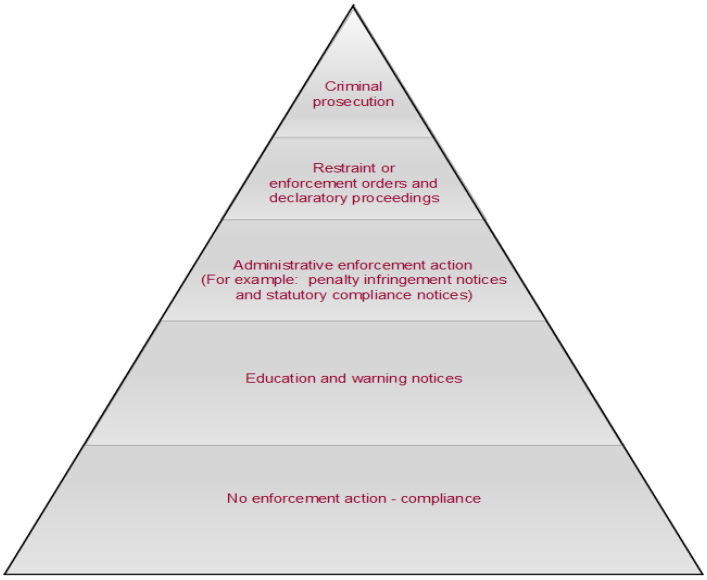
4.3 Enforcement tools

EHP has guidelines which provide general principles to assist environmental officers with choosing the appropriate enforcement tool for a given situation.

4.3.1 Escalation process

Figure 4A shows the path of escalation in the enforcement response adopted by EHP.

Figure 4A
EHP's hierarchy of enforcement

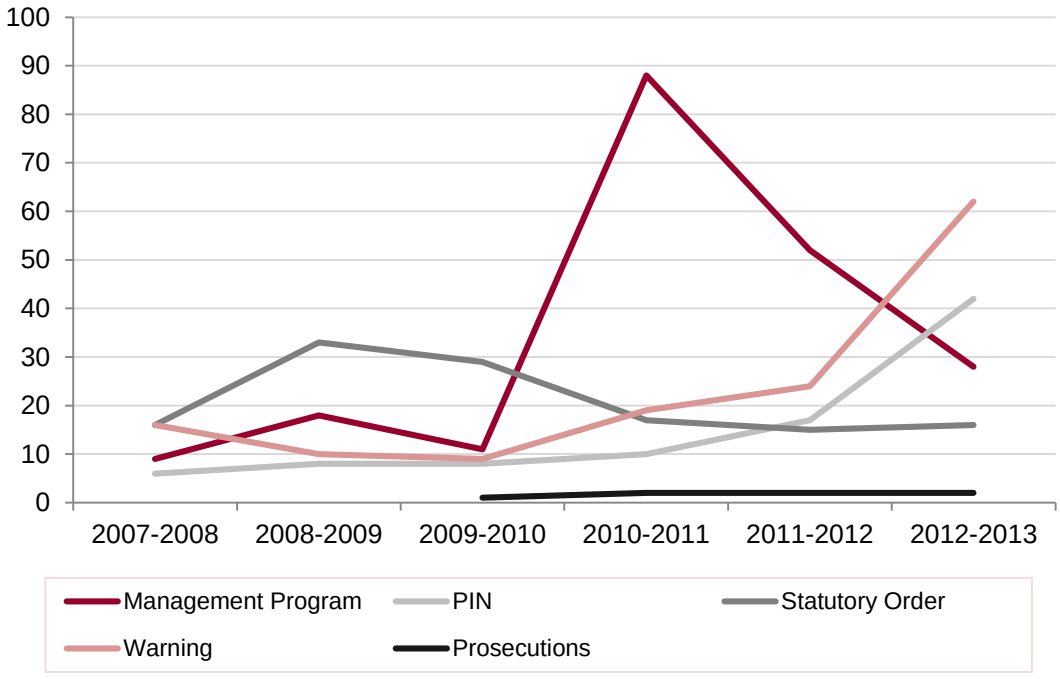


Source: Department of Environment and Heritage Protection, Enforcement Guidelines.

In some cases, EHP uses a combination of enforcement tools to address a non-compliance issue; for example, it might issue a penalty infringement notice and also require the environmental authority holder to enter a management program.

Figure 4B shows EHP's use of enforcement actions since 2007–08.

Figure 4B
Number of enforcement actions for resource activities



Source: Department of Environment and Heritage Protection, data extracted from Ecotrack, 2013

The number of management programs increased markedly in 2010-11 because of extreme weather events that led to flooding of sites and unauthorised releases of mine water. EHP's use of management programs has since decreased from its peak following the 2011 floods, toward pre-flood levels.

Over the past three financial years, EHP increased its use of warnings and penalty infringement notices but the numbers of statutory orders and prosecutions have remained steady.

Penalty infringement notices and prosecutions are penalty-based and do not provide an indication of environmental outcomes, whereas management plans and statutory orders are directed at resolving non-compliance and addressing environmental harm. EHP does not collate nor analyse information on the effectiveness of its use of warning notices, management plans or statutory orders.

4.3.2 Warnings and penalty infringement notices

EHP's enforcement guidelines do not provide guidance to its staff on the appropriate use of warning notices other than that warning notices may be an effective means to address minor non-compliance. EHP has no definition of what constitutes minor non-compliance.

Its enforcement guidelines assist environmental officers on the appropriate and inappropriate circumstances for issuing penalty infringement notices.

EHP records details of warnings and penalty infringement notices in its Ecotrack database. It also records details of penalty notices in a separate penalty infringement notice (PIN) database, which is intended to manage payment details not captured in Ecotrack. This PIN database relies on regional staff sending copies to head office in Brisbane of all penalty infringement notices issued, where the information is manually entered into the PIN database and separately into EHP's financial database. Manual entry of data into two systems is inefficient with an increased potential for errors to occur.

The PIN database and Ecotrack are not linked and information is not reconciled between them. EHP is unable to identify from the PIN database which penalty infringement notices were issued in relation to non-compliance with conditions of resources industry environmental authorities.

Figure 4C shows the numbers and values of penalty infringement notices issued to holders of environmental authorities in the resources industry recorded in Ecotrack and their status as of 24 July 2013. The penalty attached to an infringement notice issued under the *Environmental Protection Act 1994* ranges from $330 to $1 100 for individuals and from $1 320 to $2 200 for corporations.

EHP's Ecotrack data indicate that the number of penalty infringement notices has increased over this nine-year period. If these data are correct, 69 per cent of penalty infringement notices remained unpaid.

This brings into question the effectiveness of penalty infringement notices and whether the associated non-compliance issues were addressed. EHP is aware it cannot rely on the Ecotrack data because it is not linked to either the PIN or financial databases and its completeness is not known.

Although the PIN database is not able to isolate penalty infringement notices issued by industry type, we examined from the database a sample of notices issued between 2008-09 to 2012-13 that were likely to be applicable to the resources industry, such as 'contravention of a condition of an environmental authority'. We found that the PIN database recorded 62 per cent of these had been paid, 12 per cent withdrawn and the remainder were unpaid.

Figure 4C
EHP penalty infringement notices—Ecotrack data

Year	Unpaid	Amount unpaid $	Paid	Amount paid $	Withdrawn	Value withdrawn $	Total number	Total value $	Average value $
2003–04			4	6 000			**4**	**6 000**	**1 500**
2004–05			1	1 500			**1**	**1 500**	**1 500**
2005–06			2	3 000			**2**	**3 000**	**1 500**
2006–07			0	0			**0**	**0**	
2007–08	1	1 500	5	6 600			**6**	**8 100**	**1 350**
2008–09	1	500	6	8 875	1	2 000	**8**	**11 375**	**1 422**
2009–10	3	4 500	5	10 000			**8**	**14 500**	**1 813**
2010–11	7	14 000	2	4 000	1	2 000	**10**	**20 000**	**2 000**
2011–12	15	30 000	2	4 000			**17**	**34 000**	**2 000**
2012–13	41	87 800	1	2 200			**42**	**90 000**	**2 143**
Total	**68**	**138 300**	**28**	**40 675**	**2**	**4 000**	**98**	**188 475**	**1 932**

Source: Queensland Audit Office

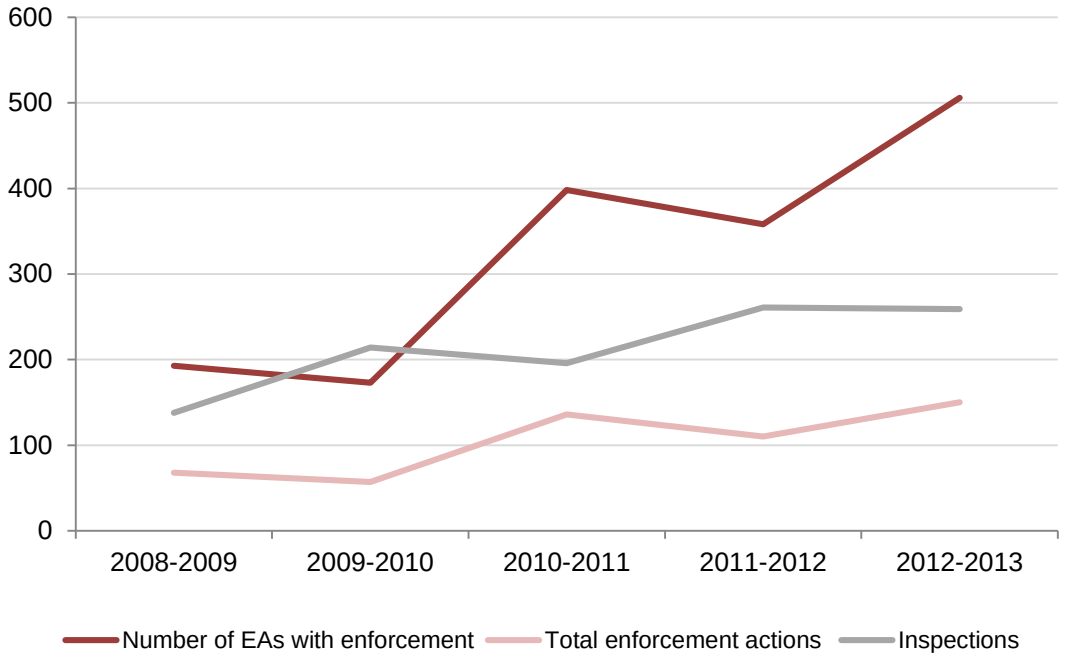
4.3.3 Inspections and enforcement

Over the period 2008-09 to 2012-13, there has been an increase in:

- the combined number of initial proactive and reactive inspections—by 88 per cent
- the number of environmental authorities with enforcement action recorded against holder—by 162 per cent
- the total number of enforcement actions taken—by 121 per cent.

Figure 4D shows that increases in inspection numbers coincided with an immediate decrease in the number of enforcement actions. Similarly, the data suggest that, when the number of inspections fell in any given year, enforcement actions immediately increased.

Figure 4D
Inspections and enforcement action from 2008–09 to 2012–13



Source: Queensland Audit Office based on data from Ecotrack

These immediate changes suggest that EHP's data may be unreliable, because we would expect to find a lag between changes in EHP's inspections and any associated behavioural effects of operators. EHP staff members conducting inspections must record details of the inspection in the EHP Ecotrack database; however, this does not always happen. The information that is entered is inconsistently recorded in Ecotrack, compromising data reliability and validity.

Furthermore, EHP does not systematically link its inspections data with its enforcement data to identify the percentage of inspections where non-compliance issues are found. This would identify trends to indicate whether industry compliance levels are improving, deteriorating or remaining static. This analysis would provide an indication of EHP's performance in influencing industry compliance over time.

EHP started such data analysis for petroleum and natural gas sites because this involved small and more recent data sets. The analysis showed a high level of non-compliance and highlighted some of the problems with the department's data.

As one example, of the CSG/LNG sites proactively inspected by EHP between 1 July 2012 and 31 March 2013:

- 34 per cent were found to be compliant
- 32 per cent were non-compliant (six per cent recorded as 'major non-compliance')
- 34 per cent of cases had insufficient information in the database to determine compliance.

Therefore, one in three proactive inspection records in the EHP database for this period did not contain sufficient information to identify whether there were non-compliance issues. Also, despite reporting on major and minor non-compliance in its assessments, EHP has no standard definition to distinguish a major non-compliance from a minor one.

4.3.4 Prosecutions

EHP takes prosecution action where:

- other enforcement actions have been unsuccessful in achieving compliance
- the non-compliance or environmental harm is so significant that lesser enforcement actions are not appropriate.

EHP must consider the existence of sufficient evidence, the likelihood of success and the public interest when deciding whether to initiate a prosecution.

Between July 2008 and December 2013, EHP commenced 12 prosecutions related to resources environmental authorities at nine separate sites and three prosecutions related to waste environmental authorities on three separate sites. All three waste-related prosecutions were successful; ten resources-related prosecutions were successful with one withdrawn and one yet to be finalised. Of the nine resources sites, seven sites were in EHP's northern region and two were in its southern region. EHP did not initiate any prosecutions in resources or waste sites in its central region over this five-year period.

One of the 12 prosecutions relating to resources industry environmental authorities was identified through EHP's proactive inspections. The remaining eleven prosecutions originated from complaints or incidents reported by the environmental authority holder or site operator. All three waste prosecutions resulted from complaints.

EHP's litigation unit directs the prosecution of non-compliance matters; however, EHP does not know the full costs of its prosecutions. EHP knows the external costs, such as the cost of engaging lawyers, but does not capture internal costs, such as the cost of investigation. EHP is usually successful in recovering the external costs of prosecution where it applies for them. If EHP calculated the full costs associated with the investigation and prosecution of these cases, there would be a greater opportunity for recovery of costs through the courts.

EHP publishes details of successful prosecutions on its website. This is both an educative and deterrent initiative. Including environmental outcomes associated with the cases would enhance this practice and would provide greater transparency and accountability and be informative to both industry and the public. Other states such as New South Wales and Western Australia publish details routinely of enforcement action taken against environmental authority holders.

4.3.5 Timeliness of enforcement

EHP's enforcement actions are not always timely. Of 36 environmental authorities sampled during the audit, 22 (61 per cent) had one or more enforcement actions recorded against them. Of these, the enforcement actions taken were not timely in four (approximately 18 per cent) of the environmental authorities; for example, one site had a dam leakage issue identified in 2004 with no documented enforcement action taken. There was documented reference in 2010 (six years later) to EHP verbally approving management strategies but no action since.

4.4 Measuring effectiveness of enforcement

In response to the recommendations of *Regulating waste: protecting the environment* (Report 10 : 2011), EHP undertook in 2012 a review of performance measures for environmentally relevant activities.

EHP's performance data provide some indication of timeliness and quantity but offer no information on the department's success in improving industry compliance or protecting the environment. While EHP reports on enforcement activities and court outcomes, data are not captured or reported to identify:

- improvements in industry compliance
- quality of enforcement actions
- protection of the environment or addressing of environmental harm.

EHP measures the timeliness of its prosecutions and actions on penalty infringement notices but not its other enforcement actions.

EHP also measures the quantity of its enforcement actions, reported in the annual compliance report and other internal reports. These measures consisted of the number of actions taken for each type of enforcement; however, the information reported consists of an aggregate across all EHP regulatory areas. EHP does not monitor or report performance by industry area.

EHP developed internal measures of:

- proponents of high risk facilities, regulated under the *Environmental Protection Act 1994*, inspected for compliance
- percentage increase of compliant facilities during initial routine compliance inspections
- percentage of facilities that are deemed compliant under the *Environmental Protection Act 1994* during a follow-up inspection.

This suite of measures would provide a better indication of EHP's performance in promoting compliance; however, EHP is only reporting on the third measure. The target for this measure is set at 60 per cent compliance rate.

EHP's quarterly performance report for the first quarter of 2013–14 shows that it did not meet the 60 per cent target, instead finding 37 per cent of facilities were compliant during follow-up inspection. This result included all industries regulated by EHP and therefore it was not possible to distinguish its performance in relation to the resources and waste industries.

None of the measures EHP reports demonstrate whether it achieves its objective of providing strong environmental management supporting sustainable economic development.

4.5 Recommendations

It is recommended that:

5. **the Department of Environment and Heritage Protection captures and recovers the full cost of investigating and prosecuting all non-compliance cases.**
6. **the Department of Environment and Heritage Protection improves its performance measurement and reporting to demonstrate the effectiveness of its activities in achieving environmental outcomes.**

5 Financial assurance

In brief

Background

The purpose of financial assurance is to ensure the state holds sufficient funds to prevent or minimise environmental harm or rehabilitate or restore the environment. It is also intended to promote compliance with an environmental authority.

Conclusions

Although recent initiatives by the Department of Environment and Heritage Protection (EHP) have increased the amount of financial assurance held by the state, the financial assurance held is often insufficient to cover the estimated cost rehabilitation and is rarely enforced. As a result, successful environmental rehabilitation is not occurring and the state remains exposed to unnecessary and unacceptable financial risks.

Where financial assurance is insufficient, the government is left with three options: not rehabilitating the site at all; rehabilitating the site only to the extent covered by the amount of financial assurance held; or fully rehabilitating the site at taxpayers' expense—none of which provides optimal outcomes for the community.

Key findings

- There is no clear record of financial assurance held by the state because communication and processes between EHP and NRM are inadequate and there is no reconciliation of records between the departments.
- EHP has made a concerted effort to increase the amount held. This has resulted in a significant increase of 240 per cent for the sample we examined; however, in 2013, EHP held $252 million less than requested for level 1 financial assurance.
- The amount of financial assurance requested is not always the amount calculated as being necessary for achieving rehabilitation, meaning there are sites with insufficient financial assurance. This leaves the state exposed, should the environmental authority holder go into administration.
- Where financial assurance held by EHP and the Department of Natural Resources and Mines (NRM) is insufficient to cover the costs of rehabilitation, the departments are reluctant to take action. This means there is a risk of further ongoing environmental damage, which could result in the future rehabilitation and management costs to the state.
- In some cases, care and maintenance may be used as a means of avoiding rehabilitation. There is no clear definition of care and maintenance sites and there is a lack of protocols between EHP and NRM about the management of these sites. This results in some sites remaining in care and maintenance while the departments dispute the administrative and regulatory responsibility.

Recommendations

It is recommended that:

7. **the Department of Environment and Heritage Protection assumes responsibility for administering all financial assurance, including those currently collected and held by the Department of Natural Resources and Mines**
8. **the Department of Environment and Heritage Protection ensures the financial assurance it calculates and collects reflects the estimated cost of environmental rehabilitation**
9. **the Department of Environment and Heritage Protection and the Department of Natural Resources and Mines establish clear definitions, guidelines and formal protocols for dealing with the ongoing management of, and where necessary the transfer of responsibility for, 'care and maintenance' sites.**

5.1 Background

In 2002, the Auditor-General conducted an audit of the regulatory aspects of the predecessor of the Department of Environment and Heritage Protection (EHP), the Environmental Protection Agency. The resultant report recommended that the Environmental Protection Agency reviewed the current financial assurance framework for resources activities to determine the existence of potential risk exposure and, if any exposure was identified, to develop strategies to reduce and manage the exposure to the state.

There is no legal requirement for government to rehabilitate environmental damage caused by mining. Where an environmental authority holder fails to meet its rehabilitation obligations and financial assurance is insufficient, the government is left with three options: not rehabilitating the site at all; rehabilitating the site only to the extent covered by the amount of financial assurance held; or fully rehabilitating the site at taxpayers' expense—none of which provides optimal outcomes for the community.

To be effective, therefore, a financial assurance should be material enough to promote compliance with environmental authority conditions and sufficient to cover the cost of rehabilitation, thus limiting the risk exposure to the state.

Government departments should have a clear and transparent process to calculate the amount of financial assurance required and established criteria to decide when to 'call in' the financial assurance.

We expected to find that financial assurance is used effectively for rehabilitation; specifically, that:

- financial assurance is forfeited to the state when appropriate
- once forfeited to the state, financial assurance is sufficient for rehabilitation.

5.2 Conclusions

Although recent initiatives by EHP have increased the amount of financial assurance held by the state, there is still a significant gap between the total financial assurance held and the estimated costs of rehabilitating the environment. This, combined with the high expectations and costs of rehabilitation, means that successful environmental rehabilitation is not occurring and the state remains exposed to unnecessary financial risks.

Financial assurance held by the state is often insufficient to cover the estimated cost of site-specific rehabilitation and it is rarely enforced. Financial assurance is usually forfeited to the state only when environmental authority holders go into liquidation: even then, environmental rehabilitation does not occur because the assurance is insufficient for this purpose.

The inability of environmental authority holders to meet rehabilitation requirements means some sites become non-operational and go into 'care and maintenance'. EHP and the Department of Natural Resources and Mines (NRM) often dispute their administrative and regulatory responsibilities for these sites, leaving some of the sites in limbo for long periods— in one case, since 1998. Because these sites are not operating, the state is not receiving royalties and some of these sites present a high risk of being abandoned.

5.3 Sufficiency of financial assurances

There is no clear record of financial assurance held by the state because:

- some is held by NRM and some is held by EHP
- there are poor processes and communication between the two agencies for managing financial assurance; for example, NRM records the financial assurance against mining lease or project numbers while EHP records the same financial assurance against the environmental authority number
- there is no central recording and therefore no single source of truth; this means the financial assurance figures recorded by EHP often vary from the figures recorded and held by NRM
- there is no reconciliation of records between the departments against funds held.

At 30 June 2013, EHP held $736 million for petroleum and gas environmental authorities and approximately $23.9 million for waste environmental authorities. EHP records show that it holds an additional $1.5 million of financial assurance for waste, but EHP is unable to confirm that it ever received these funds.

In addition, NRM holds financial assurance for mining environmental authorities on behalf of EHP, totalling $4.45 billion. There is often a lack of clarity between the two departments regarding the financial assurance required of the holder by EHP and its receipt by NRM. The situation where NRM holds the financial assurance on behalf of EHP is a legacy of previous government structures and there is no practical reason for this to continue. NRM annually audits the amount of financial assurance it holds on behalf of EHP but there is no reconciliation done between the two agencies.

Staff at EHP and NRM were confused about:

- the amount of financial assurance held against mining environmental authorities
- collection by NRM of financial assurance required by EHP from environmental authority holders.

NRM and EHP are discussing options for the transfer of financial assurance for mining environmental authorities to EHP.

Despite its September 2013 '*Financial assurance EHP staff newsletter*' stating that the department must maintain registers to record all financial assurances provided, there are no departmental or regional registers kept.

EHP is not centrally collating and monitoring information on the amount of financial assurance required and held against environmental authorities. This means that it is neither aware of, nor effectively managing the risk exposure of the state. Instead, regions manage financial assurance on an individual environmental authority basis with differing results across three regions.

EHP is responsible for setting the amount of financial assurance environmental authority holders are required to pay. Its practices for assessing financial assurance varied across its three regions. In all cases, the holder must calculate the cost of environmental rehabilitation and submit that calculation to EHP for assessment. This must occur at the application stage and at regular intervals during a holder's operations.

The financial assurance held by the state has historically been insufficient. Because EHP does not record the estimated cost of fully rehabilitating sites systematically, it is not possible to determine the gap between the financial assurance held and estimated rehabilitation costs; it is only possible to identify the gap between the amount of financial assurance requested by EHP and the amount received from holders.

Over recent years, EHP made a concerted effort to increase the amount of financial assurance held and to reduce the gap in the full cost of rehabilitation. Figure 5A shows, by region, the financial assurance requested and held and the variance in the calendar years of 2008 and 2013 for level 1 resources environmental authorities and the change in 2013 for those same environmental authorities.

Figure 5A
Financial assurance for Level 1 resource environmental authorities

EHP region	2008 FA requested $ m	2008 FA held $ m	2008 Variance $ m	2013 FA requested $ m	2013 FA held $ m	2013 Variance $ m
North	327	266	-61	1 378	1 363	-15
South	119	106	-13	348	196	-152
Central	1 230	1 083	-147	3 483	3 398	-85
Total	**1 676**	**1 455**	**-221**	**5 209**	**4 957**	**-252**

Source: Queensland Audit Office based on EHP and NRM data

There has been a 240 per cent increase in the financial assurance held against these environmental authorities, due partly to expanding operations and EHP efforts to request more financial assurance; however, EHP's methodology for calculating financial assurance is applied inconsistently and does not always reflect the actual rehabilitation costs. EHP is currently developing a financial assurance calculator for Queensland conditions but, at the time of audit, there was no uniform method for calculating financial assurance adopted by EHP.

Consequently, there are different practices applied across the three regions; for example, staff members in southern and central regions accept rehabilitation costs provided by holders of environmental authorities without doing their own calculations. Regional staff members identified a lack of skills, confidence and an appropriate financial assurance calculator as the reason for this.

In contrast, staff members in the northern region have used a financial assurance calculator developed in Victoria and, at the time of audit, were using one developed by the New South Wales Department of Primary Industries. Neither of these calculators is ideal as neither was developed for Queensland conditions; however, each does provide a basis for estimating the cost of rehabilitation.

Staff members in the northern region compare their calculations with those provided by environmental authority holders and, where there is a considerable variance, negotiate the level of financial assurance with the holder. This has contributed to a 412 per cent increase in financial assurance for those level 1 mines in the northern region that had financial assurance in 2008.

Nevertheless, the amount of financial assurance requested is not always the amount calculated and documented as being required. We identified 10 sites where the cost of rehabilitation was not calculated or where the requested amount was less than the calculated cost of rehabilitation. This was because the holder was unable or unlikely to pay the full amount. At one site, we found EHP had required the holder of the environmental authority to provide $10.4 million less than the rehabilitation cost EHP calculated.

The difference between the financial assurance amount requested and the amount held is partly due to negotiations by EHP with holders of environmental authorities and EHP applying discounts. The current financial assurance system provides for a discount, based on environmental and compliance performance. While this rewards operators for good environmental performance, it contributes to the gap between the financial assurance held by EHP and the estimated cost of rehabilitation. It relies on the holder to continue performing well. This leaves the state exposed, should the holder go into administration.

There is little evidence of progressive rehabilitation occurring in Queensland. The concept of progressive rehabilitation, introduced into the *Environmental Protection Act 1994* in 2006, can reduce financial assurance by certifying areas as rehabilitated during the life of the environmental authority. EHP identified one case since 2006 where progressive rehabilitation had started. This may be because environmental authority holders were reluctant to rehabilitate progressively in case it becomes viable to conduct further operations on the land in the future.

5.4 Forfeiture of financial assurance

Where financial assurance held by EHP and NRM is insufficient to cover the costs of rehabilitation, the departments are reluctant to take action in appropriate cases to revoke permits and claim financial assurance for the state. While this would transfer control of the site to the state, there is no documented policy to support the practice of not claiming the financial assurance when appropriate. This means there is a risk of further ongoing environmental damage which could result in the future rehabilitation and management costs to the state.

EHP forfeited financial assurance to the state due to environmental authority holders failing to meet their rehabilitation requirements on two occasions. Both occasions were the result of the holders going into administration and, in both cases, the financial assurance obtained by EHP was insufficient to rehabilitate the sites. In one case, the financial assurance held was 1.5 per cent of the estimated rehabilitation cost and, in the other case, the financial assurance held was approximately 10 per cent of the estimated rehabilitation cost.

Case study 2

Insufficient financial assurance
The operators and tenement holders of a gold mine located in EHP's southern region were penalised for not complying with an environment protection order on the inadequacy of the site tailings dam. The tailings dam on the site needed capping as part of the rehabilitation. The company went into liquidation in July 2004. Consequently, EHP made a claim on the financial assurance held for the site. NRM hold $11 204.42 under a bank guarantee in financial assurance for the site. The financial assurance held was insufficient, with EHP estimating that full rehabilitation will cost approximately $1 million. Nine years after the company went into liquidation, the site has still not been rehabilitated and EHP is now pursuing the land owners to assume responsibility for stabilising the tailings dam. It has sent a letter to the land owners requesting they advise EHP on their proposed actions to stabilise the tailings dam.

Source: Queensland Audit Office based on EHP records

EHP identified 45 instances between 2003 and 2013 where it approved the surrender of a resources industry environmental authority and returned financial assurance to the holder, all of which were level 2 resources activities. EHP was unable to provide a complete list due to poor recording of data in Ecotrack.

A requirement for the surrender of environmental authorities and return of financial assurance is that all environmental rehabilitation is completed successfully; however, EHP does not inspect these sites to ensure rehabilitation has been done and done to an acceptable standard. Instead, EHP accepts information provided by the holder on face value and approves surrender of the environmental authority. Given that EHP does not monitor level 2 sites routinely, it does not have any basis to verify the completion and standard of rehabilitation. This leaves the environment vulnerable to potential harm and the state exposed to cover the cost of any future rehabilitation, without holding financial assurance.

5.5 Care and maintenance

Both EHP and NRM refer to some resources sites as being in 'care and maintenance'. Neither EHP nor NRM has a definition, processes or guidelines to manage these sites. A site is in care and maintenance if the environmental authority holder is no longer operating the site to produce resources, but is maintaining the site, infrastructure and equipment. Because the site is not producing resources, the operator does not pay royalties to the state but is required to pay rent and annual return fees. The risk of environmental harm remains.

NRM identified that, as of July 2013, there were 96 sites in care and maintenance; however, during the course of the audit, eight further sites were identified that were not listed by NRM. EHP neither tracked nor knew the number of sites in care and maintenance. Neither NRM nor EHP held records of dates when sites had gone into care and maintenance. We sampled records of 11 sites in care and maintenance. Of the sampled sites:

- 10 had one or more EHP enforcement actions taken against them
- six had NRM incidents recorded against them
- seven did not have sufficient financial assurance to cover the estimated cost of rehabilitation.

Although EHP does not keep records on when a site went into, or came out of, care and maintenance, we found that one of the sampled sites had been in care and maintenance since 1998. For this site, the financial assurance held is $3.8 million while the rehabilitation costs are estimated as $14.2 million.

Assessment of rehabilitation requirements is a critical component of the surrender process of the environmental authority and tenure. The surrender of a lease has two parts—the surrender of the tenure, for which NRM is responsible, and the surrender of the environmental authority, for which EHP is responsible. The surrender of the environmental authority requires the satisfactory rehabilitation of the site.

Where EHP considers that the financial assurance is insufficient but the environmental authority holder disagrees, EHP is reluctant to threaten cancellation because the state would inherit rehabilitation responsibility. Similarly, EHP require the lease tenure to remain active; otherwise, the operator has no right to access the site. In the event of non-payment of rent, NRM is reluctant to cancel the lease. This leaves the site in a state of limbo. Financial assurance is usually only forfeited to the state when the holder goes into receivership.

Large mines involve major land disturbance and construction of new landforms with waste 'overburden material', often in drainage lines and waterways. Rehabilitation, implemented over a period of years, attempts to reproduce natural systems and landscapes that have taken millennia to form.

There are a number of reasons, such as changes in world commodity prices, as to why a mine might go into care and maintenance. In some cases, particularly sites in care and maintenance for long periods, it may be the result of the expectations of full rehabilitation being unachievable and financially prohibitive and used as a means of avoiding rehabilitation.

EHP advised that many of the level 1 sites would require up to 50 years of post-rehabilitation monitoring for successful rehabilitation before EHP can approve the surrender of the relevant environmental authority and return of financial assurance. It is unlikely that the government, operators and public were aware of this and the costs associated with the ongoing regulation of these sites.

We identified two examples of sites awarded for their environmental rehabilitation, only for the rehabilitation to fail subsequently.

Case study 3

Unsuccessful rehabilitation
Mining and processing at a gold mining site located in EHP's northern region ceased in July 2001. Industry members cited the mining company as a good example of rehabilitation at mining conferences and in best practice guidelines. In November 2001, the Australian Minerals and Energy Environment Foundation (AMEEF) awarded its Excellence Award to the company for its mine closure process. The mine closure process involved engineering a 'store and release', cap and cover system for the waste rock dumps and tailings storage facility, with the intent to reduce infiltration of water and to minimise the potential for acid mine drainage. EHP has not signed off on the surrender of the environmental authority because rehabilitation was not completed to its satisfaction. The rehabilitation has not met the strategies detailed in the plan of operations or closure criteria developed as a requirement of the environmental authority issued for the site. EHP considers that the site has mine drainage legacy issues, with no indication these issues were resolved. The site requires a high level of maintenance, including capture and pumping of contaminated water generated by rainwater infiltration into waste rock dumps and the tailings storage facility at the site. The unsuccessful rehabilitation on the site has significant implications for EHP given that, if the company abandons the site, the state will inherit responsibility for rehabilitation. The current financial assurance held by the state is $3 804 311, being less than the $4 717 717 requested by EHP. This covers maintenance of the site at the current standard and active management of seepage to ensure it remains on site. The financial assurance held by the state will not be sufficient to provide for the replacement of the cover system across the entire 650 hectares of waste rock dumps and tailings storage facility at the site. The mining company is currently developing a closure plan that aims to address the outstanding rehabilitation requirement at the site, including long term management and closure of the waste rock dumps and tailings storage facility at the site.

Source: Queensland Audit Office based on EHP records

A 2007 review by the Service Delivery and Performance Commission found a lack of clarity of responsibilities and processes between public sector agencies for the transfer of sites to the NRM-administered Abandoned Mines Land Program (AMLP). Despite recommendations made by the Commission in its report, there is still no clear definition about care and maintenance sites and no transparency on transfer of administrative responsibility for sites from EHP to the NRM-administered AMLP. There is a lack of clear protocols between the two departments about the management of these sites. This results in sites remaining in care and maintenance while EHP and NRM dispute over the administrative and regulatory responsibility for the site.

Case study 4

Care and maintenance
In 2008, a gold and copper mining company located in EHP's northern region went into administration. The company was the operator of a number of leases in the region. The mine sites have been in care and maintenance for a number of years with processing of ore ending in 2007. EHP and its predecessor agencies had inspected the sites regularly since 2005 and identified financial assurance was underestimated during those inspections. EHP's predecessors issued an environmental evaluation notice for water contamination and inadequate rehabilitation to several of the mine sites on 3 September 2008. The total cost of rehabilitation is estimated to be between $10 million and $12 million. On 27 July 2009, approximately $150 000 held by EHP's predecessor, the Department of Environment and Resource Management, as financial assurance across the sites was forfeited to the state. On 8 March 2010, EHP refused an application from administrators for surrender of the environmental authorities and the administrators were directed to carry out rehabilitation works by 31 August 2010. The environmental authorities were eventually cancelled in October 2011, following legal advice, that prosecution was unlikely to be successful and all other avenues to force the permit holder to rehabilitate had been exhausted. NRM banked the financial assurance. EHP and NRM have been in dispute since 2011 over responsibility for the administration and rehabilitation of the site. Neither NRM nor EHP is accepting responsibility for this site and no environmental rehabilitation has occurred.

Source: Queensland Audit Office based on EHP records

5.6 Pooled fund model for rehabilitation

In December 2013, the Queensland Government commenced the development of a pooled fund model similar to the Western Australian Mining Rehabilitation Fund. The Western Australian system has been in place since July 2013; so it is too early to tell whether it will achieve its intended benefits. In the interim, EHP was due at the end of January 2014 to issue its staff with revised financial assurance guidelines and a financial assurance calculator; however, this has since been delayed until March 2014.

As in Western Australia, the object of the fund will be to provide the state with access to funds to meet the cost of rehabilitating a site or preventing environmental harm in the event that the environmental authority holder fails to do so. The intent is to allow the government to use the interest from the fund balance as a source of funding for abandoned mines. Operators will provide an annual non-refundable risk payment into a pooled fund, to be used by the government should the need arise to step in and rehabilitate a site. The amount of the required payment has not yet been determined; in Western Australia, it is one per cent of the calculated total rehabilitation cost.

If a similar model is to be successful in Queensland, the issues with financial assurance identified in this audit that must be addressed include:

- having an accurate and consistent method of calculating of the full cost of rehabilitation—this will be needed if, as in Western Australia, the annual non-refundable risk payment required is based on a percentage of the estimated full rehabilitation cost
- clarifying the roles and responsibilities of EHP and NRM to deal with sites in care and maintenance
- better administration of the request, collection and management of the funds from environmental authority holders
- firm and timely action against environmental authority holders who fail to make the required payments.

5.7 Recommendations

It is recommended that:

7. **the Department of Environment and Heritage Protection assumes responsibility for administering all financial assurances, including those currently collected and held by the Department of Natural Resources and Mines**
8. **the Department of Environment and Heritage Protection ensures the financial assurance it calculates and collects reflects the estimated cost of environmental rehabilitation**
9. **the Department of Environment and Heritage Protection and the Department of Natural Resources and Mines establish clear definitions, guidelines and formal protocols for dealing with the ongoing management of, and where necessary the transfer of responsibility for, 'care and maintenance' sites.**

Appendices

Appendix A— Comments 53

Appendix B— Audit method 63

Audit objective 63

Appendix C— 2011 waste audit 65

Recommendation 1 65
Recommendation 2 66
Recommendation 3 66
Recommendation 4 66
Recommendation 5 66
Recommendation 6 66

Appendix D— Department of Environment and Heritage Protection inspections 67

Appendix A—Comments

In accordance with section 64 of the *Auditor-General Act 2009*, a copy of this report was provided to the Department of Environment and Heritage Protection and the Department of Natural Resources and Mines with a request for comment.

Their views have been considered and are represented to the extent relevant and warranted in preparing this report.

Responsibility for the accuracy, fairness and balance of the comments rests with the head of these agencies.

Comments received from Director-General, Department of Natural Resources and Mines on 12 March 2014

Queensland Government

Department of
Natural Resources and Mines

Your Ref 2013-9108P
Our Ref CTS 04587/14

12 MAR 2014

RECEIVED
13 MAR 2014
QUEENSLAND AUDIT OFFICE

Mr Andrew Greaves
Auditor-General
Queensland Audit Office
PO Box 15396
CITY EAST QLD 4002

Dear Mr Greaves

Thank you for your letter of 24 February 2014 concerning the Performance audit on environmental regulation of the resources and waste industries.

I notice that you have considered the various comments that we included in track changes in your earlier report and made changes where you have deemed it appropriate. I have attached the "Responses to Recommendations" which largely incorporates the comments that were made in my previous letter dated 7 February 2014 into the format required for tabling in Parliament.

The Department of Natural Resources and Mines agrees with the principles contained in the three recommendations impacting on it. However, I would like to point out that as these recommendations also impact on the Department of Environment and Heritage Protection, the timing of implementation may need to be revised based on mutual agreement. The timelines indicated should therefore be regarded as indicative, subject to further inter-departmental discussion.

Thank you for bringing this matter to my attention and I trust this information is of assistance. Should you have any further enquiries, please contact Mr Dave Johnson, Manager, Land and Mines Policy, Department of Natural Resources and Mines on telephone 3199 7363.

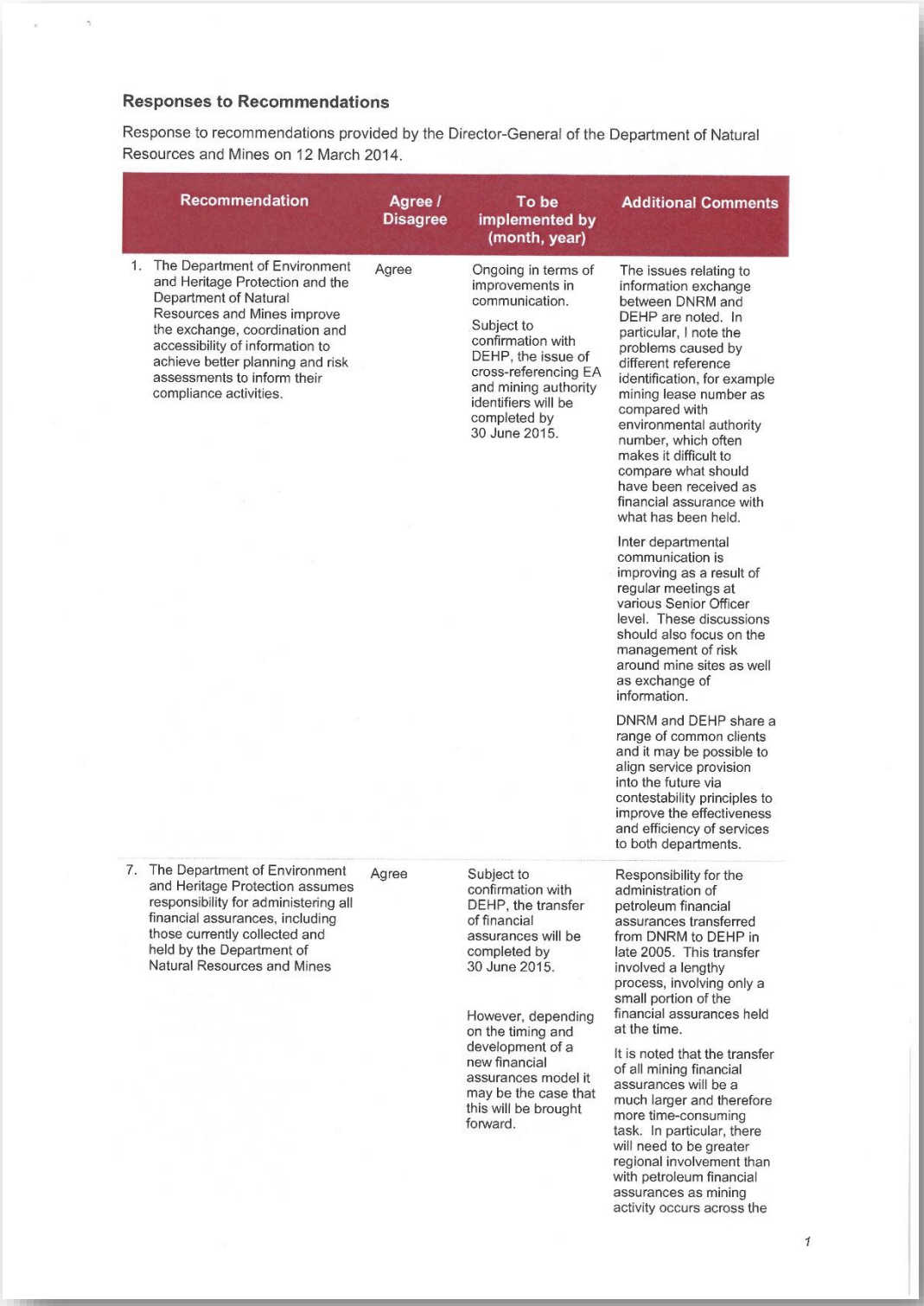
Yours sincerely

Dr Brett Heyward
Director-General
Natural Resources and Mines

Att

Director-General
Department of Natural Resources and Mines
PO Box 15216
City East
Queensland 4002 Australia
www.dnrm.qld.gov.au

Responses to recommendations



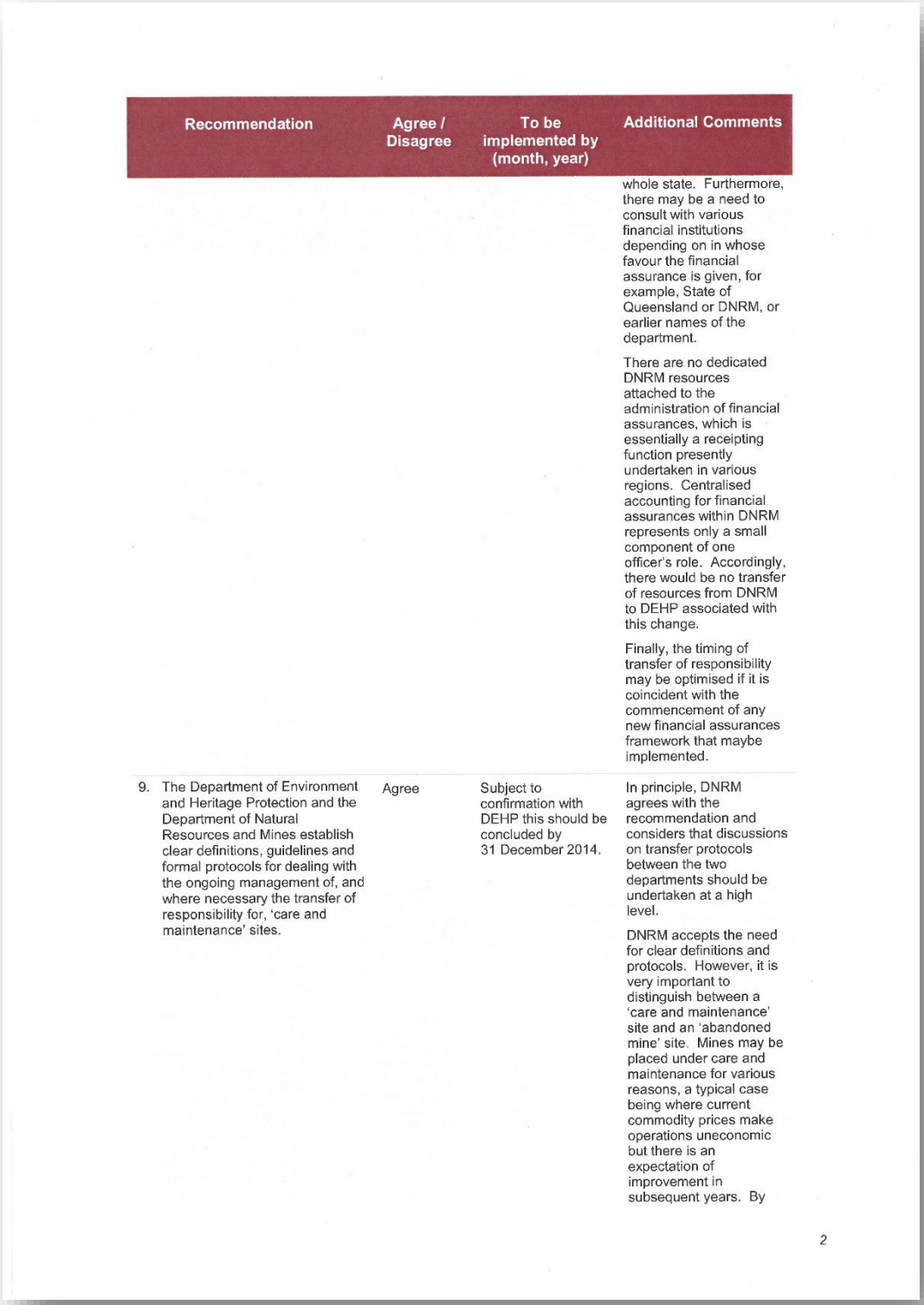
Responses to Recommendations

Response to recommendations provided by the Director-General of the Department of Natural Resources and Mines on 12 March 2014.

Recommendation	Agree / Disagree	To be implemented by (month, year)	Additional Comments
1. The Department of Environment and Heritage Protection and the Department of Natural Resources and Mines improve the exchange, coordination and accessibility of information to achieve better planning and risk assessments to inform their compliance activities.	Agree	Ongoing in terms of improvements in communication. Subject to confirmation with DEHP, the issue of cross-referencing EA and mining authority identifiers will be completed by 30 June 2015.	The issues relating to information exchange between DNRM and DEHP are noted. In particular, I note the problems caused by different reference identification, for example mining lease number as compared with environmental authority number, which often makes it difficult to compare what should have been received as financial assurance with what has been held. Inter departmental communication is improving as a result of regular meetings at various Senior Officer level. These discussions should also focus on the management of risk around mine sites as well as exchange of information. DNRM and DEHP share a range of common clients and it may be possible to align service provision into the future via contestability principles to improve the effectiveness and efficiency of services to both departments.
7. The Department of Environment and Heritage Protection assumes responsibility for administering all financial assurances, including those currently collected and held by the Department of Natural Resources and Mines	Agree	Subject to confirmation with DEHP, the transfer of financial assurances will be completed by 30 June 2015. However, depending on the timing and development of a new financial assurances model it may be the case that this will be brought forward.	Responsibility for the administration of petroleum financial assurances transferred from DNRM to DEHP in late 2005. This transfer involved a lengthy process, involving only a small portion of the financial assurances held at the time. It is noted that the transfer of all mining financial assurances will be a much larger and therefore more time-consuming task. In particular, there will need to be greater regional involvement than with petroleum financial assurances as mining activity occurs across the

1

Responses to recommendations



Recommendation	Agree / Disagree	To be implemented by (month, year)	Additional Comments
			whole state. Furthermore, there may be a need to consult with various financial institutions depending on in whose favour the financial assurance is given, for example, State of Queensland or DNRM, or earlier names of the department. There are no dedicated DNRM resources attached to the administration of financial assurances, which is essentially a receipting function presently undertaken in various regions. Centralised accounting for financial assurances within DNRM represents only a small component of one officer's role. Accordingly, there would be no transfer of resources from DNRM to DEHP associated with this change. Finally, the timing of transfer of responsibility may be optimised if it is coincident with the commencement of any new financial assurances framework that maybe implemented.
9. The Department of Environment and Heritage Protection and the Department of Natural Resources and Mines establish clear definitions, guidelines and formal protocols for dealing with the ongoing management of, and where necessary the transfer of responsibility for, 'care and maintenance' sites.	Agree	Subject to confirmation with DEHP this should be concluded by 31 December 2014.	In principle, DNRM agrees with the recommendation and considers that discussions on transfer protocols between the two departments should be undertaken at a high level. DNRM accepts the need for clear definitions and protocols. However, it is very important to distinguish between a 'care and maintenance' site and an 'abandoned mine' site. Mines may be placed under care and maintenance for various reasons, a typical case being where current commodity prices make operations uneconomic but there is an expectation of improvement in subsequent years. By

2

Responses to recommendations

Recommendation	Agree / Disagree	To be implemented by (month, year)	Additional Comments
			definition in the *Mineral Resources Act 1989* Section 344, an 'abandoned mine' site is one where mining tenure no longer exists. Whilst not stated in this definition, further necessary conditions are that the environmental authority also no longer exists and it is not possible to pursue the entity that created the disturbance.

Comments received from Director-General, Department of Environment and Heritage Protection on 26 March 2014

Queensland Government

Department of
Environment and Heritage Protection

Ref CTS 07349/14

26 MAR 2014

Mr Andrew Greaves
Auditor-General
Queensland Audit Office
PO Box 15396
CITY EAST QLD 4002

Dear Mr Greaves Andrew,

Thank you for your letter dated 25 March 2014 enclosing a re-drafted copy of your proposed report on the environmental regulation of the resources and waste industries. As requested, I have enclosed a table setting out the department's response to your recommendations.

I am pleased that you have now acknowledged the department's regulatory strategy and the role that it will play in driving a fundamental shift in how the department manages Queensland's environment to achieve better environmental outcomes. I firmly believe that the department is on a path that will deliver better more efficient results for Queenslanders.

Generally, the findings in the proposed report accord with the department's own assessment of the opportunities for improvement in the regulation of the resource and waste sectors, particularly between this department and the Department of Natural Resources and Mines. EHP has already commenced a number of initiatives that will address your recommendations, several of which have been underway since before the commencement of the audit. It is somewhat unfortunate that the timing of your audit means that you have not had the chance to assess and provide advice on the effectiveness of these initiatives, particularly the replacement of the troublesome and ineffective information system, Ecotrack.

I do, however, strongly disagree with your conclusion that the department "is not fully effective in its supervision, monitoring and enforcement of environmental conditions, unnecessarily exposing the State to liability and the environment to harm". I think this conclusion is out of keeping with the findings and tenor and substance of your recommendations. It ignores the fact that serious environmental incidents in Queensland are rare and that when they have occurred the department has successfully prosecuted those involved.

EHP is committed to be the environmental protection agency by which others benchmark themselves.

Level 13
400 George Street Brisbane
GPO Box 2454 Brisbane
Queensland 4001 Australia
Telephone + 61 7 3330 6297
Facsimile + 61 7 3330 6306
Website www.ehp.qld.gov.au
ABN 46 640 294 485

Comments received from Director-General, Department of Environment and Heritage Protection on 26 March 2014

Should your staff have any further enquiries, please ask them to contact Dr Glen Brown, Executive Director, Environmental Performance and Coordination on telephone 3330 5627.

Yours sincerely

Jonathan (Jon) RC Black
Director-General

Att

CC: The Honourable Andrew Powell MP, Minister for Environment and Heritage Protection
Mr Jon Grayson, Director-General, Department of the Premier and Cabinet
Mr Brett Heyward, Director-General, Department of Natural Resources and Mines

Page 2 of 2

Responses to recommendations

Response to recommendations in proposed report, 'Environmental regulation of the resources and waste industries'

Department of Environment and Heritage Protection

Number	Recommendation	Agree?	Implemented by	Additiopal comments
1	EHP and DNRM improve the exchange, coordination and accessibility of information to achieve better planning and risk assessments to inform their compliance activities.	Yes	December 2014	EHP will work with DNRM to develop a protocol for the provision of information to EHP to be used by its intelligence analysis team to inform intelligence assessments and compliance planning. EHP will also shortly commence a project to update the interagency manual that governs interactions between DNRM and EHP on matters related to assessment and licensing of resource activities.
2	EHP pursue enforcement action to recover the long-term debt it is owed from annual fees	Yes	Ongoing	EHP already undertakes enforcement action in respect of outstanding annual fees, in the form of suspension and cancellation of environmental authorities. It also undertakes legal action to recover outstanding debts where it is appropriate to do so. EHP has begun investigating the use of options to recover long-term debt in a cost-effective way, including through the use of mercantile agents to assist with the recovery process. EHP will continue with this approach noting that: • There will be authorities for which suspension or cancellation is inappropriate because of the risk that that action would pose to the management of environmental risks at the site or to other forms of

KEEPER_n2415911_Responses_to_QAO_recommendations

Responses to recommendations

				enforcement action. • Some long-term debt will be unable to be recovered in a cost-effective manner and for this portion of the debt a write-off of the outstanding amount is a legitimate action that is consistent with prudent financial management practices.
3	EHP utilises information provided in annual returns to inform its compliance planning and improve its supervision of industries it regulates	Yes	(a) June 2015 (b) June 2016	(a) EHP will incorporate information from annual returns into its state and regional compliance planning processes (b) As part of Project Unify, EHP will develop a system for annual returns to be able to be completed and lodged online, which will improve the ability of EHP to analyse data from returns.
4	EHP implements a program to proactively monitor compliance with EAs with standard conditions and variations to standard conditions	Yes	July 2015	EHP is currently undertaking a Compliance Renewal Program which will consider the use of third party auditors for lower risk sites.
5	EHP captures and recovers the full cost of investigating and prosecuting all non-compliance cases	Yes	July 2014	EHP has recently changed its approach to seeking costs to include the costs of professional officers involved in investigations.
6	EHP improves its performance measurement and reporting to demonstrate the effectiveness of its activities in achieving environmental outcomes	Yes	June 2016 (although progress will be gradual and measured from now onwards)	The compliance framework will be rewritten as part of the Compliance Renewal Program and will consider this aspect of performance measurement.
7	EHP assumes responsibility for administering all financial assurances, including those currently held and collected	Yes	June 2016, with progressive transfer to EHP occurring	EHP has already begun discussions with DNRM about handing administration of financial assurance to EHP, and will continue

KEEPER_n2415911_Responses_to_QAO_recommendations

Responses to recommendations

	by DNRM		before that date	working with DNRM with a view to a complete handover. Given the complexity and amount of financial assurance involved, the transfer will take place progressively. Development of an alternative financial assurance model – such as a pooled fund – may mean that an agency other than EHP becomes responsible for administering the model.
8	EHP ensures the financial assurance it calculates and collects reflects the estimated cost of environmental rehabilitation	Yes	March 2014	EHP has revised its financial assurance guideline to include a calculator for resource activities, and to include an enhanced discount system to encourage better environmental performance, and will publish the revised guideline in March 2014. EHP is also undertaking a wider review of the financial assurance system to look at the alternative model of a fund rather than assurances from each individual operator.
9	EHP and DNRM establish clear definitions and formal protocols for dealing with the transfer and ongoing management of 'care and maintenance' sites	Yes	December 2014	EHP will develop robust processes for dealing with mines in care and maintenance. EHP will work with DNRM to develop clear definitions and protocols for the transfer and ongoing management of care and maintenance sites, and for calling on financial assurance.

KEEPER_n2415911_Responses_to_QAO_recommendations

Appendix B—Audit method

Audit objective

The objective of the audit was to determine whether the compliance monitoring, reporting and enforcement of environmental conditions for resource and waste management activities is effective and protects the state from liability for rehabilitation and the environment from unnecessary harm.

Figure B1
Audit scope

Sub-objectives		Lines of Inquiry	
1	Compliance monitoring and reporting is risk based, timely and effective in ensuring compliance.	1.1	Compliance monitoring is risk based, timely and effective in ensuring compliance.
		1.2	Compliance with environmental authorities is routinely and consistently checked, documented and reported.
		1.3	There is adequate data collection and agency reporting to assess performance and ensure information is appropriately distributed and used for decision making.
2	Enforcement is timely and effective.	2.1	Enforcement actions are appropriate, timely and well documented.
		2.2	Enforcement action is effective in improving compliance levels of environmental authority holders.
3	Financial assurance is effectively used for rehabilitation.	3.1	Financial assurance is forfeited to the government when appropriate.
		3.2	Once forfeited to the government financial assurance is sufficient and used for rehabilitation.

Source: Queensland Audit Office

Reason for the audit

The resources industry is one of the Queensland government's four pillars of the economy. The resource and waste industries contribute significantly to Queensland's economy. Employment in the resources sector grew from 16 500 to 73 400 positions over the past decade. With this growth, the risk of long term harm to the environment also increased and requires effective regulation to prevent and mitigate environmental harm.

One of the government’s key strategies is to ease the burden on industry caused by regulation and its associated bureaucracy—red tape and green tape specific to environmental issues. Since 2012, the *Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012* has been implemented to assist resource and waste operators by streamlining the process for obtaining an environmental authority by reducing green tape without lowering environmental standards or protection.

Effective regulation of the resources and waste industries will promote sustained economic development while maintaining and improving environmental outcomes.

Performance audit approach

The audit was conducted between May 2013 and February 2014. It included the departments with responsibility for regulating the resources and waste industries.

The audit consisted of:

- interviews with staff at the Department of Environment and Heritage Protection and the Department of Natural Resources and Mines
- analysis of data sourced from departmental systems
- analysis of key documents, including plans, guidance material and performance reports
- engagement with industry stakeholders.

The audit was undertaken in accordance with *Auditor-General of Queensland Auditing Standards* which incorporate Australian auditing and assurance standards.

Appendix C—2011 waste audit

Figure C1 shows our assessment of the implementation status of the recommendations from *Regulating waste: protecting the environment (*Report No 10 : 2011). The Department of Environment and Heritage Protection (EHP) has implemented two of the six recommendations and partially implemented four.

Figure C1
Queensland Audit Office assessment of the implementation status of recommendations

Recommendation		I	P
It is recommended the former Department of Environment Resources and Mining:			
1.	implements, as planned, projects to: a) review all existing high and very high risk environmentally relevant activity development approval conditions to reflect current environmental standards b) formalise a methodology to develop compliance plans and monitor the implementation of compliance plan project recommendations	I	
2.	ensures that all annual returns from operators are reviewed in a timely manner and collects any outstanding annual fees in accordance with legislation		P
3.	provides assistance and oversight to ensure a rigorous, consistent approach to regional compliance planning which adequately covers identified risks and priorities	I	
4.	regularly analyses and reports activity across its full suite of enforcement actions against levels of non-compliance to determine the timeliness and effectiveness of enforcement actions		P
5.	reviews its performance measures, baseline data and external reporting to ensure these aspects of performance management represent the outcomes of regulatory activity on protecting the environment		P
6.	ensures that its information systems produce data that is reliable, relevant, complete and easily accessed by all users of the systems.		P
Total		**2**	**4**

I = Implemented

P= partially implemented

Source: Queensland Audit Office

Recommendation 1

EHP has undertaken reviews of high and very high risk environmentally relevant activities. It has formalised processes for its development of compliance plans and to monitor progress of compliance plan projects.

Recommendation 2

EHP has undertaken a number of initiatives to improve its management of annual returns and annual fees; however, these initiatives have had limited success. Since 2011, the number of outstanding annual returns has reduced but the number of annual fees outstanding for more than 90 days has risen slightly. The total amount of outstanding debt from annual fees has dropped but this is largely due to EHP writing off $447 695 in debts.

Recommendation 3

EHP has implemented processes that have improved its compliance planning. These processes have resulted in:

- greater planning consistency across the department
- integration of regional input into departmental plans and priorities
- alignment between departmental and regional plans.

Recommendation 4

EHP is not reporting effectively on levels of non-compliance and the effectiveness of enforcement actions is not identified. Its reports aggregate data from all areas it regulates, meaning that it is impossible to identify effectiveness of its enforcement in regulating specific industries and levels compliance in each industry. While it reports on court outcomes of its prosecution, it does not report on environmental outcomes. Its data management practices do not allow it to report environmental outcomes of its enforcement actions.

Recommendation 5

EHP's performance measures are still output and activity based and are not adequate to demonstrate outcomes of its regulatory activities in protecting the environment. They also do not allow it to demonstrate whether it is achieving its organisational objective.

Recommendation 6

EHP's information systems do not produce data that are relevant, reliable, accessible, timely and useful. It has just commenced the first phase of a project to assess the costs and benefits of developing an information technology solution to its problems with its Ecotrack database.

Appendix D—Department of Environment and Heritage Protection inspections

Figure D1 shows inspections of the Department of Environment and Heritage Protection (EHP) by region, type and level from 2010–11 to 2012–13.

The EHP structure has three regions (northern, central and southern), each responsible for the operational monitoring and enforcement of compliance with conditions of environmental authorities.

EHP conducts both proactive and reactive inspections to monitor compliance with conditions of environmental authorities. Proactive monitoring was determined through annual compliance plans developed centrally and at regional office level. Reactive monitoring involved responding to incidents and complaints, usually from the public, landowners or reports from other departments such as the Department of Natural Resources and Mines (NRM).

EHP categorised its inspections into three levels:

- **Level A** or basic inspections are the lowest level of compliance inspection, tend to be targeted at a specific environmental issue and involve non-complex and low risk sites. They may comprise a quick visual check of a site or a more detailed assessment of only a portion of the site operations. Level A inspections can also be inspections to establish compliance following enforcement actions taken by EHP.
- **Level B** or condition inspections are generally the most common level of site inspection EHP undertakes and assess the environmental authority holders' performance against approved conditions. Level B inspections may also include assessment of other documentation, such as site-based management plans and involve the taking of samples.
- **Level C** or audit inspections are the highest level and most detailed level of compliance assessment. These inspections are pre-planned and scoped, may involve other experts, and examine compliance with all aspects of environmental authorities and the broader legislation. Level C inspections usually include the taking of samples or records of onsite monitoring to determine environmental effects.

Figure D1
EHP inspections

Regions	Inspection Type	Levels	2010–11	2011–12	2012–13	3-year combined total
Central	Proactive—follow-up	Level A	2	2	0	4
		Level B	0	7	1	8
	Proactive—initial	Level A	12	7	9	28
		Level B	30	59	29	118
		Level C	3	0	20	23
	Reactive—follow-up	Level A	1	3	2	6
		Level B	2	1	0	3
	Reactive—initial	Level A	1	1	1	3
		Level B	5	2	1	8

Regions	Inspection Type	Levels	2010–11	2011–12	2012–13	3-year combined total
		other	1	1	4	6
Central region total			**57**	**83**	**67**	**207**
North	Proactive—follow-up	Level A	3	2	7	12
		Level B	24	12	11	47
		other	1	2	1	4
	Proactive—initial	Level A	6	7	12	25
		Level B	33	22	43	98
		Level C	6	4	1	11
		other	1	2	2	5
	Reactive—follow-up	Level A	4	7	5	16
		Level B	7	7	7	21
		Level C	1	1	0	2
		other	1	0	1	2
	Reactive—initial	Level A	7	14	4	25
		Level B	16	6	2	24
		other	0	1	2	3
North region total			**110**	**87**	**98**	**295**
South	Proactive—follow-up	Level A	5	10	8	23
		Level B	9	14	26	49
		Level C	1	3	1	5
		other	2	1	3	6
	Proactive—initial	Level A	21	40	20	81
		Level B	30	64	42	136
		Level C	8	13	8	29
		other	0	1	3	4
	Reactive—follow-up	Level A	3	6	10	19
		Level B	5	6	5	16
		Level C	2	0	0	2

Regions	Inspection Type	Levels	2010–11	2011–12	2012–13	3-year combined total
		other	4	3	0	7
	Reactive—initial	Level A	6	4	24	34
		Level B	4	9	26	39
		Level C	1	0	0	1
		other	5	4	6	15
South region total			**106**	**178**	**182**	**466**
Annual combined total			**273**	**348**	**347**	**968**

Source: Queensland Audit Office from EHP Ecotrack data

Auditor-General Reports to Parliament

Reports tabled in 2013–14

Number	Title	Date tabled in Legislative Assembly
1.	Right of private practice in Queensland public hospitals	July 2013
2.	Supply of specialist teachers in secondary schools	October 2013
3.	Follow up—Acquisition and public access to the Museum, Art Gallery and Library collections	October 2013
4.	Follow up—Management of offenders subject to supervision in the community	October 2013
5.	Traffic management systems	November 2013
6.	Results of audit: Internal control systems	November 2013
7.	Results of audit: Water sector entities 2012–13	November 2013
8.	Results of audit: Hospitals and Health Services entities 2012–13	November 2013
9.	Results of audit: Energy sector entities 2012–13	November 2013
10.	Contract management: renewal and transition	December 2013
11.	Results of audit: State public sector entities for 2012–13	December 2013
12.	Results of audit: Queensland state government financial statements 2012–13	December 2013
13.	Right of private practice: Senior medical officer conduct	February 2014
14.	Results of audit: Local government entities 2012–13	March 2014
15.	Environmental regulation of the resources and waste industries	April 2014