AUDITOR-GENERAL'S REPORT

PERFORMANCE AUDIT

Follow-up of Performance Audit:

Management of Intellectual Property

The Legislative Assembly
Parliament House
SYDNEY NSW 2000

The Legislative Council
Parliament House
SYDNEY NSW 2000

In accordance with section 38E of the *Public Finance and Audit Act 1983*, I present a report titled **Follow-up of Performance Audit: Management of Intellectual Property**.

R J Sendt
Auditor-General

Sydney
March 2005

Contents

Foreword

Periodically we review the extent to which agencies have implemented the recommendations they accept from our earlier audits. This gives Parliament and the public an update on the extent of progress made.

Intellectual property (IP) can have value to the agency concerned and may have the potential for wider commercial use. Poor management of IP can impose risks, including the risk of lost opportunities. Because it is not 'tangible' like a building or plant and equipment, the need for properly managing IP may be overlooked.

In this follow-up audit, we examine changes following our October 2001 report on how well public sector agencies were managing intellectual property.

R J Sendt
Auditor-General

March 2005

Executive summary

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Intellectual property (IP) refers to legal rights that protect the result of original and creative effort. In the public sector, IP exists in most works containing information and in many innovations and technologies.

In 2001 we found that the management of IP was varied across the public sector and in general was not adequate.

Existing IP policies for the NSW public sector were incomplete because they did not help agencies to develop policy, identify their IP assets, integrate management of IP with agency objectives, access expert help when needed, encourage staff to be innovative and so create and promote the uptake of IP, or monitor and defend IP against unauthorised use.

We advocated improved coordination between agencies responsible for developing whole-of-government policy in regard to IP.

This report updates progress on implementing the recommendations from that report as at February 2005.

Audit opinion

Although the Premier's Department did not specifically accept the recommendations in our 2001 report, *Management of Intellectual Property*, it has addressed the issues raised.

Of the two primary recommendations made in the report, progress has been made against each:

- Premier's Department has recently issued a whole-of-government framework for the statewide management of intellectual property (IP)

- Some agencies had already taken the initiative to develop policies and practices to manage their IP and registers on which to record and value their IP before the issue of statewide guidance.

A statewide framework is an important development. The next challenge is implementation. Agencies must take responsibility for implementation, requiring leadership, planning and resources. As agencies continue to look for central guidance and support, Premier's Department has the challenge of facilitating discussion and sharing of ideas between agencies to foster sector-wide adoption of emerging better practice.

Our 2001 audit

Our 2001 audit focused on determining the efficiency and effectiveness of arrangements for managing IP across the NSW public sector by reviewing 14 public sector agencies.

The audit examined whether systems existed to ensure the efficient and effective management of IP for the benefit of the people of NSW. We suggested such systems should:

- account for (identify and report on) significant IP assets controlled by agencies

- support sound management decisions to create, acquire or access new IP necessary to perform agency functions

- provide assurance that IP assets are appropriately protected, monitored and defended

- provide assurance that management of IP assets maximises the benefit of IP and minimises risk consistent with agency objectives and functions.

2001 audit findings

In addition to finding that IP management was varied, an existing framework for IP was incomplete, and improved coordination between agencies regarding IP was needed, we made a number of other findings and recommendations.

Agency awareness and expertise was lacking

Key findings from the report included:

- some agencies did not understand what IP is and were not aware of IP assets under their control

- most agencies did not maintain a register of IP assets

- many agencies did not have adequate policies and systems to manage their IP

- because of lack of expertise in the area, agencies tended to be overly cautious towards IP

- few agencies recognised or rewarded innovation leading to IP

- most agencies had not allocated adequate resources for the management of IP.

We stated that agencies needed to do more to ensure the ongoing management of their assets, including:

- using risk management techniques to evaluate whether to own or obtain a licence for their IP
- ensuring staff, contractors and consultants disclosed when their work might lead to the creation of IP so that agencies were aware of IP assets
- identifying when IP was being used without permission
- enforcing IP rights against infringement.

We also found that most agencies did not manage the uptake of IP adequately. In particular, some were not sure who owned IP developed through collaboration with other organisations; a number were uncertain as to whether they were allowed to commercialise or deal in IP; and there was confusion about who should approve the disposal or transfer of IP to external parties.

Whole of government response needed

We recommended that a whole of government response to the management of IP be developed. A number of specific recommendations regarding elements to be included in the approach were made.

Agencies needed IP polices and registers

We also recommended that agencies develop policies and procedures for the management of IP in accordance with the whole of government approach. In addition, we suggested each agency should develop and maintain a register of IP assets, including their value.

2004 follow-up audit

While indicating that it would consider establishing a working party to develop a whole of government approach to the management of intellectual property, Premier's Department did not expressly accept the recommendations from our 2001 audit.

Nevertheless, the Department created a Working Group and developed a statewide Framework for the management of intellectual property within the NSW public sector. The Framework was released in early 2005.

The following chapter summarises changes since the 2001 audit. A more detailed summary of the status of recommendations and changes since 2001 is provided in Appendix 2.

Response from Premier's Department

Thank you for your letter of 14 February 2005 providing the final draft report of the Follow-up Performance Audit – Management of Intellectual Property for comment.

I note the draft report acknowledges that the Premier's Department has addressed the issues raised in your original 2001 report, Management of Intellectual Property. The draft report also acknowledges the progress made by agencies to develop policies and practices to manage their intellectual property before the issue of statewide guidance.

As the report points out, the release of the Intellectual Property Management Framework for the NSW Public Sector in February 2005 is an important development. The Framework has been developed by the Premier's Department to assist agencies manage their intellectual property effectively. It is the product of an extensive consultation process with public sector agencies, and draws on the expertise of specialist practitioners from across Australia.

Implementation of the Framework will ensure that the intellectual property of the NSW Government is effectively managed in order to optimise the economic, social and environmental benefits to the people of NSW.

I would like to thank your staff for the cooperative manner in which they conducted the review. I look forward to the tabling of the report in Parliament.

(signed)

C Gellatly
Director-General

Dated: 16 March 2005

What has happened since the 2001 audit?

Background

What is intellectual property?

Intellectual property (IP) refers to legal rights that protect the result of original and creative effort. It represents the property of the mind or intellect. It can be an invention, trade mark, original design or the practical application of a good idea.

Common methods of protecting IP include copyright, trademarks, design protection, and plant breeder's rights (PBR).

Common types of IP and their statutory protections			
Type of IP	What is protected?	Protected by (Commonwealth law)	Registration needed?
Patent	New invention that has a practical application (eg, device, machine method, substance, or business process)	*Patents Act 1990*	Yes
Copyright	Original form or expression of an idea (eg, book, software, film, music, or painting)	*Copyright Act 1968*	No (automatic)
Trade mark	Badge of origin distinguishing goods and services of one trader from another	*Trade Marks Act 1995*	Yes
Design	Visual appearance or shape of an article	*Designs Act 1906*	Yes
Circuit layout	Original layout design of an integrated circuit	*Circuit Layouts Act 1989*	No (automatic)
Confidential information	Trade secrets, know-how and secret information	Common law	No (automatic)

Source: *Inhouse Counsel*, vol 6, no 2, November 2002

Changes since the 2001 audit report

The importance of IP has continued to grow since our 2001 audit. At the time, many agencies were unaware of what IP was. Today, the issue has surfaced on many agencies' "radar screens". However some agencies may still be unsure how to identify and manage their IP and may be unaware of the risks of its mismanagement.

Premier's Department

Responsible for developing whole-of-government approach

Although our 2001 report focused on how well all NSW public sector agencies were managing intellectual property, our recommendations were directed towards the Premier's Department as being the likely lead agency to coordinate a whole of government approach to the management of IP.

While the Department did not specifically accept our recommendations, it has addressed the issues we raised.

Working group created

Our primary recommendation was that a whole of government response to the management of intellectual property be established. In its response to our 2001 audit, Premier's Department said that it would consider establishing an inter-agency working group to undertake this work.

The Department created such an inter-agency working party in early 2002. In July 2002, the working party held a focus group involving approximately 40 state agencies in order to understand their perspectives and experiences in dealing with IP and gain consensus on what should and should not be included in the statewide framework.

Draft framework developed

Out of the working party meetings and focus group, a draft *Intellectual Property Management Framework for the NSW Public Sector* was developed. A number of iterations of the Framework were subsequently developed and circulated for comment. In December 2004, Premier's Department emailed the latest draft to approximately 45 agencies for final comment.

Framework released early 2005

Premier's Department released the Framework to state agencies in early February 2005.

General government sector agencies will be required to implement the framework as part of their 2005-2006 business planning processes.

Information about the Framework will be provided to CEOs through the state's CEO Committee network. The Department has also worked with IPAA NSW to develop a training program to help agencies implement the framework. The training course, entitled "Intellectual property risk management" was planned for 18 February and 21 July 2005, with additional sessions if needed.

Monitoring the implementation of recommendations

As part of our standard reporting framework for follow-up audits, we comment on whether agencies have developed an implementation plan and then monitored its progress (e.g. through an Audit Committee or other mechanism). We also report on whether agencies report their progress in subsequent annual reports.

Monitoring and reporting on implementation

As Premier's Department did not explicitly accept the recommendations from our original report, there was no formal monitoring by the Department of implementation of our recommendations. The issue was, however, included on its reform agenda.

Public reporting

The 2001-02 annual report notes that one of the Public Sector Management Office's future challenges is to develop a NSW Public Sector framework for the management of intellectual property. The 2001-02 and 2002-03 reports also mention a Management of Intellectual Property Working Group and its members. No additional explanation or description was provided in the reports regarding the challenge or the working group's functions, activities, or outcomes.

Other agencies

We followed up with ten state agencies involved in the previous audit to determine what, if any, changes had been made in the way they manage their IP since our 2001 report.

Agency Response	
IP policy and register in place	3
IP policy only	1
IP register only	1
No policy or register available	4
Did not respond to our request	1

Some agencies have proactively managed IP

Some agencies have continued to proactively manage their IP. At the time of our previous audit, both NSW Agriculture (now part of the Department of Primary Industries) and TAFE NSW (under the Department of Education and Training) were already thinking about and managing their IP. Both organisations continue as frontrunners in managing IP.

NSW Agriculture	NSW Agriculture has been commercialising its IP for almost two decades. The Department's IP policy has been extant since the mid-1990s.
	Most of Agriculture's IP is released as information to clients (farmers, agribusinesses), and much of its research is co-funded with industry and/or Commonwealth matched funds. The majority of its commercially viable IP is in plant varieties (Plant Breeders' Rights) that are licensed to bidders who produce, distribute and market the plant varieties. Ownership of IP remains with the Department and all rights revert to it after the term of the licence.
	IP developed by Agriculture's employees is owned by the Department. When there is collaboration with outside researchers, ownership depends on the terms of the contract.
	The agency has detailed IP policies that are available on its intranet; a position dedicated to identifying, facilitating and managing IP; and a comprehensive register for recording and tracking licensed IP and any associated revenue.
	The biggest risk to the agency in not managing its IP well is the impact on industry. Farmers depend on the Department's developments (i.e. better varieties, technology); if the IP is not transferred to the rural community effectively through licensing, it will impact on the Department's reputation as a credible research and development (R&D) agency. The loss of reputation may reduce the Department's ability to attract additional research funding and limit its capacity to generate new IP and remain a leading R&D provider to rural industries.
	According to an agency spokesman, the hardest part in managing IP is coming to grips with, and changing if necessary, the culture in an organisation. For instance, some employees felt that IP should be freely disseminated to the public, and have had difficulty accepting the Department's decision to commercialise some of its IP.

Lessons learned	The Department of Agriculture developed a weed-activated sprayer using red-infrared light. It licensed the technology, which needed further R&D to refine the process, to the only bidder at the time. The bidder was not able to adequately perform the needed R&D to fully commercialise the technology and manufacture it to the Department's specifications. The Department eventually terminated the licence because the technology had lost its window of commercial opportunity. The lesson learned by the Department was to select a licensee with the resource base, skills, and knowledge of the industry needed to produce, develop and support the product to ensure it is exploited successfully to the benefit of that industry as well as the Department. The Department has since incorporated such criteria into its selection process when evaluating bidders.

TAFE NSW	At the time of our last audit, TAFE had some guidelines regarding various issues involving IP, such as copyright, but there was no specific IP policy. Since then, TAFE has developed an IP Policy and conducted IP management awareness workshops across its institutes. The IP Policy is planned for implementation across TAFE NSW by mid 2005, when comprehensive guidelines will also be completed.
	To date TAFE NSW's IP policy has not been implemented, but the agency is seeking the Department's permission to pilot the policy in all TAFE institutes prior to adapting it to the entire Department upon approval. Designs for an IP register have been made but the software for the proposed database has not yet been developed.
	According to TAFE spokespeople involved in development of the policy, protecting, valuing, and using IP for the benefit of NSW should be primary focus of any IP policy. They believe that having an IP register effectively says to employees that "everything you do is important and of value".
	The agency, which has spent over a million dollars developing the policy and register specifications, is keen to share its experiences and lessons learned with other government agencies as they seek to implement the statewide framework.

Some agencies have developed IP policies and registers

Recognising the importance of managing IP well, some agencies have forged ahead and developed their own IP policies and/or registers since we conducted our last audit. Sydney Water, the Department of Health, and State Records are examples of this.

| ***Sydney Water*** | Sydney Water conducts lots of research involving IP in areas such as microbiology, sewage treatment and disposal, water quality, environmental interests, engineering and chemical interests. This agency also has a 'business end' and information technology areas which involve IP. |
| | At the time of our last audit, Sydney Water did not have a specific IP policy; its policy was ad hoc and contract-driven. In response to our recommendation that agencies develop their own IP policies and registers, Sydney Water took up the issue and now has both. It also created a position to coordinate and facilitate the management of IP within the organisation. |

Department of Health	The Department of Health issued a policy for managing IP in August 2004. The policy focuses on medical research and strives for transparency in identification and management of IP assets derived from medical research and ensuring potential value of such IP is realised. It adopts the approach to IP sharing prevalent within academic institutions, thereby creating an incentive for the inventor to report IP and lessen the probability of ownership disputes.
	NSW Health believes that IP should be managed in accordance with similar principles to those applying to other types of asset: the level of accountability should be commensurate with the value of the asset and it should be managed in a way that maximises its usefulness to the organisation. According to an agency spokeswoman, "The response to IP management and accountability should suit the value of the asset."
State Records	Previously known as State Archives, this office helps state agencies handle their records from creation of a record through to classification as an archive. The agency provides policies on how to handle records, including retention and disposal, as well as physical storage facilities. Most of State Records' IP is in the form of publications, some of which are sold internationally in microfilm format.
	State Records did not have a formal management system for its IP when we conducted our 2001 audit. It now has an IP register, which helps it track publications and royalty payments. The agency plans to develop a formal IP policy following the recent issue of the statewide Framework by Premier's Department.

Other agencies still lacking policies

The second major recommendation from our 2001 audit was that agencies should develop their own policies to manage IP and maintain registers of their IP assets. These assets should be accounted for where appropriate.

As noted previously, Premier's Department did not specifically accept our 2001 recommendations. Nevertheless, the issue of managing intellectual property has continued to rise since our last report and some of the agencies originally audited have forged ahead to address this.

Several of the agencies we followed up are still lacking IP policies. Some said they were awaiting guidance in the form of the Premier's Department statewide framework prior to developing their own policy.

Cautionary tales

Despite the intangible nature of IP, it is a valuable asset that is not only tradable but can also be protected. Common methods of protecting IP include copyright, trademarks and design protection, and plant breeder's rights (PBR).[1]

Pink Lady apples	The Cripps Pink (Pink Lady) and Cripps Red apple varieties were developed by Western Australia's Department of Agriculture (AGWEST). Since 1994, the Cripps Pink and Cripps Red apple varieties have earned AGWEST in excess of $3 million in royalties, with over $1 million collected in 1998-99.
	With the release of the Cripps Pink, AGWEST was suddenly faced with the need to deal with the new and burgeoning issue of IP and commercialisation. In some cases, events preceded AGWEST and it was not adequately prepared to deal with the exploitation of IP, resulting in some of the situations listed below. Legal advice obtained by AGWEST in 1994 highlighted the need for AGWEST to *'develop strategies to exploit the IP rights and the products protected by the IP rights having regard to AGWEST's statutory functions'*.
	• Due to limited experience with plant breeders' rights legislation and uncertainty about industry acceptance, AGWEST did not apply for plant breeders' rights in Australia to the Cripps Pink variety.
	• In Argentina, France, UK and US, other organisations successfully applied for the Pink Lady trademark before AGWEST. Ownership of the trademark was recovered through negotiation with relevant parties in all but the US.
	• In 1998, AGWEST successfully defended its IP rights in legal action against an infringement of its Cripps Pink rights in the US.
	• Despite a strong case prepared by plant breeder's rights experts, AGWEST was unsuccessful in opposing a third party's application for Australian rights to the Pink Rose apple which AGWEST maintains is identical to the Cripps Pink variety.[2]

In the absence of robust policies and practices, IP may not be identified or protected and opportunities for recovering costs lost. Without appropriate protection, agencies may jeopardise potential royalty streams. In addition, there may be impacts on the competitiveness of State industry and loss of commercial opportunities if IP is not protected and falls into the public domain.[3]

Viral concentration process

> Knowledge of patent law is crucial and ignorance of it can be costly. Sydney Water discovered this when it developed a new viral concentration process by modifying an existing filtration process with kidney dialysis filters and specially designed filter end-pieces. Using its new device, the agency sold its assay services before seeking to patent the device.
>
> The device is now ineligible for international patent protection because it has already been used in a commercial activity. Under the Patent Cooperation Treaty, one patent may be lodged covering all participating countries (instead of having to file in separate countries initially). In addition, one initial patent period is used and the creation date is protected. However, the treaty requirements exclude anything that has already seen commercial use.
>
> Because the device had been used commercially, Sydney Water could patent it only in the countries that still permitted commercial use prior to registration, thereby incurring greater effort and cost through individual registrations, varying timeframes, and creation dates. This also limited the patent to the USA, Canada, Australia and New Zealand. To achieve wider protection it had to also be registered as a 'design' elsewhere, which affords lesser protection than the international patenting process.

Government agencies can experience problems when they develop projects without formal agreements with contractors, IP management plans, or inventories that track successive versions of software packages. Problems may result in litigation or costly settlements to ascertain ownership and use. While matters are settled, projects can face delays due to uncertainty about ownership or scope of licences. It is important that IP policies emphasise that agreements be documented and finalised before work begins.[4]

Universities and health research are high risk areas

According to the Independent Commission Against Corruption (ICAC), it is becoming increasingly common for Area Health Services (AHS) employees or contractors to develop their own products or services based on their work or research within an AHS. They sometimes wish to establish a business to commercialise the product or service, or to use the product or service in a clinical situation.

Two main issues emerge regarding intellectual property:
- individuals may misuse IP owned by the hospital or AHS to further their own business interests
- the AHS may not receive the appropriate ownership or benefits of IP for products or services developed by employees or contractors within the AHS.

The ICAC noted that "If IP is not managed appropriately there can be risks of corruption. Similarities in the activities of universities suggests that this risk is equally applicable to the higher education sector."

Victoria University of Technology and iP3 Systems court case	In 2003 and 2004, the Victoria University of Technology sued several of its academics over ownership of an invention they made while allegedly using university resources and time. The court found there was no evidence the university's intellectual property policy was ever approved by the university council and that in any case, it was never published in the university's human resources manual or equivalent publication. Although it concluded that the inventors had to share the profits of their invention with the university, the court did not find that the university was entitled to ownership of the invention.[5] As recently reported in the media, the firm created by the former employees is now suing the university for $48 million in what may be the largest damages claim ever brought against an Australian university: Software company iP3 Systems said yesterday it would sue the Melbourne university for financial hardship suffered during a legal dispute with the university over ownership of products developed by iP3 Systems. It wants to recoup damages incurred during the legal battle. The university had claimed ownership of intellectual property and two e-commerce software products on the basis that the two founding members of iP3 may have been working on the products while they were employed as academics at Victoria University. The company said yesterday that Victorian Supreme Court Judge Geoffrey Nettle found in favour of iP3 Systems in February last year - a claim disputed by the university. iP3 chief executive Ahmed Youssef said the claim represented the significant harm done to the company by the university's actions. However, Victoria University's Acting Vice Chancellor, Professor Richard Carter, said the company's claims were incorrect.[6]

Conclusion

Despite not having publicly endorsed our recommendations, Premier's Department has addressed the issues we raised. A statewide framework for the management of IP in the NSW public sector has been developed over a three year period and was released statewide in February 2005.

A number of state agencies have already taken action to begin developing IP policies and registers. Others are awaiting statewide guidance before proceeding.

The statewide framework is an important development. The next challenge is implementation. Agencies must take responsibility for implementation, requiring leadership, planning and resources. As agencies continue to look for central guidance and support, Premier's Department has the challenge of facilitating discussion and sharing of ideas between agencies to foster sector-wide adoption of emerging better practice.

Appendices

Appendix 1   **About the audit**

Audit objective   In this follow-up performance audit we examined the extent to which the Premier's Department had implemented recommendations from our *Management of Intellectual Property* (2001) report.

Criteria   We judged changes in practice or performance based on whether or not:
- the Department had assessed the impact of recommendations, determined a course of action, and implemented accepted recommendations
- the implementation plan was monitored and progress reported (e.g. through an Audit Committee or other mechanism)
- the Department had reported its progress in subsequent annual reports.

Scope, focus and approach   We examined the extent to which the Department and selected agencies implemented the recommendations from our 2001 report; the impact and magnitude of any change; and if recommendations were not fully implemented, what action was taken to address the issue.

We obtained sufficient specific evidence to show what the Department and agencies did to progress recommendations, and what changes occurred as a result of implementation. Findings were based on evidence collected through document analysis, the Department's formal response to recommendations, and interviews with Premier's Department and other state agencies.

Cost of the audit   The estimated cost of this audit was $78,700 including printing and overheads.

Acknowledgement   The Audit Office gratefully acknowledges the cooperation and assistance provided by representatives of the Premier's Department and by the Department of Health, Department of Lands, Department of Primary Industries/NSW Agriculture, NSW Treasury, State Rail, RailCorp, Office of State Records, Sydney Water, Department of Education and Training/TAFE NSW and the University of NSW.

Audit team   Team leader for this performance audit was Rachel Hibbard. Direction and quality assurance was provided by Sean Crumlin.

Appendix 2   Summary of changes since the 2001 audit

Recommendation	Changes in practice
1. That a whole of government response to the management of intellectual property:	
• establish accountability for the development of the government-wide framework for IP management • improve the coordination of agencies involved in developing aspects of whole-of-government IP policy • champion the implementation of the IP policy framework	Premier's Department has taken responsibility for developing a whole-of-government framework and has recently issued 'Intellectual Property Management Framework for the NSW Public Sector' to assist NSW Government agencies. Development of the policy utilised input from around 40 government agencies
• integrate IP management with other management and whole-of-government policies. These include risk, information, procurement and human resource management	Premier's Department has consulted Treasury officers on the pricing of intellectual property. The Department has advised that separate access and pricing policies are being developed. The Framework notes in the Commercialisation section that: *Access and pricing guidelines for Government Information are currently being developed. When the guidelines are approved, agencies will need to follow them in cases where they are seeking to commercialise IP products, or deciding to transfer IP on a non-commercial basis.* In addition, • the Framework also makes clear that it reflects and expands on agencies' obligations to manage assets as set out in the Total Asset Management (TAM) policy, Results and Services Plan agreements, *Public Finance and Audit Act 1983*, *Public Sector Employment and Management Act 2002*, and *Annual Reports legislation* • the framework recommends agencies adopt a risk management approach when implementing the framework. As such, IP management is integrated with other management and whole-of-government policies • Now that the framework is finalised, integration with other key management and whole-of-government policies will occur through the usual processes and mechanisms.
• provide the public sector with a "model IP policy" or IP guidelines to support the management of IP by agencies	The Premier's Department framework includes a better practice guide which lists items that should be included in an IP policy.

Recommendation	Changes in practice
• foster and encourage innovation across the public sector	The NSW Government has a number of initiatives designed to foster and encourage innovation across the public sector. While they are not specifically discussed in the Framework, many relate to, and implicitly encourage the use of intellectual property. According to the Premier's Department • the Department of State and Regional Development's Innovation and Technology Unit provides advice on innovation policy relating to industry and leads key programs enhancing the State's innovation and commercialisation capability • the Ministry for Science and Medical Research is developing an Innovation and Science Strategy that aims to improve the NSW science and innovation landscape for scientists and their work • NSW Premier's Public Sector Awards foster and encourage innovation across the NSW public sector by formally recognising and rewarding achievements of excellence.
• clarify the mandate of agencies to develop and commercialise IP	According to the Premier's Department, one of the aims of the Commercialisation Principles and Better Practice in the framework is to clarify the mandate of NSW government agencies to develop and commercialise IP. The Principles state that in making decisions about commercialising government IP, the agency must be satisfied that the people of NSW will obtain the maximum benefit. In some cases it may be in the best interest of NSW for the agency to transfer IP to another government agency or to private industry either for a fee, a non-commercial fee, or free of charge. Any commercialisation decisions by agencies must be made on the basis of appropriate legal, financial and commercial IP advice. The Department feels that, as with most areas of IP management in the NSW public sector, a "one size fits all" approach is inappropriate. As such, the Commercialisation Better Practice segment of the framework provides, among other things, guidance regarding when to commercialise and what issues need to be considered when commercialising IP.
• ensure legal and commercial IP expertise is available to agencies	The framework's 'Resource Kit' provides contact details for Crown Solicitor's and other resource agencies. The framework also includes reference to the services offered by the Department of State and Regional Development (DSRD). DSRD can provide advice to Government agencies wishing to commercialise their IP and products and take them to market. DSRD works closely with key organisations such as the Australian Institute for Commercialisation, which offers commercialisation support services. DSRD can also provide Government agencies with links to research and development organisations, small businesses, and industry and service providers to help build networks and partnerships needed to drive commercial success.

Recommendation	Changes in practice
	In addition, the Framework also refers to the services offered by the Ministry of Science and Medical Research. The Ministry can provide agencies with access to information relevant to IP. MSMR also funds commercialisation services through BioLink and Biomed North.
	BioLink is a member- owned service that has been established to assist government and not-for-profit life science research institutions in NSW with the identification, protection and commercialisation of their IP. BioLink will also provide services in IP education, marketing of IP rights and the negotiation of transactions on behalf of its members.
	BioMed North provides IP protection and commercialisation services to the Northern Area Health Service and institutions undertaking biomedical research in the northern corridor of Sydney.
	BioLink and Bio Med North have commenced planning for BioMed North to become a partner with BioLink. This will form the basis of a statewide IP service.
• improve awareness among agencies of all significant issues affecting IP	The Department expects that awareness of significant IP issues will improve once the IP Framework Principles and Better Practice are implemented by agencies. Depending on the significance of IP to the agency, the framework recommends, for example:
	• incorporating key IP themes into staff inductions, in-house briefings, and forums for staff
	• circulating booklets and pamphlets on IP within the agency
	• developing standard contracts that address IP issues
	• providing relevant staff with training in contract management and related IP issues, and
	• dedicating part of the agency's intranet to IP and providing links to websites which provide more information and updates on developments in IP.

Recommendation	Changes in practice
• find out why certain agencies have limited awareness of existing government policy	The Department did not specifically seek to find out why certain agencies have limited awareness of existing government policy. However, such knowledge was gained during a focus group held by the Department in July 2002. The focus group, attended by approximately 40 NSW public sector agencies, was primarily designed to clarify what should and should not be included in the statewide IP framework and to identify some of the challenges NSW agencies face in managing their IP. As part of the process, there was discussion regarding existing government policy. The Department concluded that awareness of government policy depends on individuals within an agency rather than the agency as a whole, and predicts awareness will again improve once the current IP framework is implemented by agencies.
• make each CEO accountable for the management of all IP assets.	Under the framework, which was released via Premier's Department Circular in early February 2005, all general government chief executives will be required to implement the framework. The NSW public service accountability framework requires CEOs to be accountable for this and other relevant government policies.

2. Each agency should be required to:	
• develop policies to manage IP that are compatible with the agency's corporate objectives	Agencies were not advised of the recommendation that agencies should develop IP policies, maintain registers of IP, and value their IP by Premier's Department at the time of our last audit. These requirements have now been included in Premier's whole-of-government framework that has recently been issued statewide in February 2005. Nevertheless, some agencies had already taken steps to develop and implement their own IP policies before the issue of statewide guidance.. For example, the Department of Health, State Records, and Sydney Water have all developed IP policies and/or registers as a result of our 2001 recommendation. Other agencies, such as NSW Agriculture and TAFE NSW, already had IP policies or were developing IP policies at the time of our previous audit. Some agencies specifically noted that they were awaiting direction from the Premier's Department framework.

Appendix 3	Examples of IP held by NSW government agencies

Department of Primary Industries/ NSW Agriculture

- Patent covering engineering inventions, animal vaccines, pest control technology, DNA markers
- Copyright – biometrical software, books, animal and plant genetic programs
- Plant Breeders Rights in a range of plant varieties
- Trademarks covering a range of products from crop, pasture and animal management programs supporting educational, advisory and regulatory functions within the Department.

Department of Health

- medical research and technology

State Rail and RailCorp

- business names
- copyright - course documentation, curricula, teaching and learning materials
- domain names
- IT systems
- patents
- trademarks

State Records

- copyright – publications

Sydney Water

Research and technology related to:
- engineering and chemical interests
- environmental interests
- microbiology
- sewerage treatment and disposal
- water quality

Department of Education and Training/TAFE NSW

- copyright – course documentation, curricula, teaching and learning materials
- educational management systems – including student and course information systems
- fashion and jewellery designs
- learning and assessment strategies
- multimedia products
- plant breeders rights (horticulture and husbandry schools)
- website content - including brand names (eg TAFE)

Treasury

- financial information software system
- risk management methodology

Appendix 4   Glossary

AHS   Area Health Service

CEO   chief executive officer

ICAC   Independent Commission Against Corruption

IP   intellectual property

IPAA   Institute of Public Administration Australia

R&D   research and development

TAM   Total Asset Management

Notes

[1] Auditor General for Western Australia, "Management of Intellectual Property by the Department of Agriculture: A Case Study of a New Apple Variety" http://www.audit.wa.gov.au/reports/report2002_08.pdf p15-19

[2] Auditor General for Western Australia, *Public Sector Performance Report 1999*, http://www.audit.wa.gov.au/reports/report99_07.html   p32.

[3] Auditor General for Western Australia, *Public Sector Performance Report 1999*, http://www.audit.wa.gov.au/reports/report99_07.html   p33.

[4] South Australia Auditor-General's Department, "Management of Intellectual Property in Computer Software: A Specific Focus on Intellectual Property Rights in Computer Software: Case Studies: Audit Issues" (http://www.audit.sa.gov.au/98-99/intellec/casestudies.htm).

[5] Victoria University of Technology v Wilson & Ors [2004].

[6] News Limited, *The Daily Telegraph*, 13 January 2005, p. 2.

Performance Audits by the
Audit Office of New South Wales

Performance Auditing

What are performance audits?

Performance audits are reviews designed to determine how efficiently and effectively an agency is carrying out its functions.

Performance audits may review a government program, all or part of a government agency or consider particular issues which affect the whole public sector.

Where appropriate, performance audits make recommendations for improvements relating to those functions.

Why do we conduct performance audits?

Performance audits provide independent assurance to Parliament and the public that government funds are being spent efficiently and effectively, and in accordance with the law.

They seek to improve the efficiency and effectiveness of government agencies and ensure that the community receives value for money from government services.

Performance audits also assist the accountability process by holding agencies accountable for their performance.

What is the legislative basis for Performance Audits?

The legislative basis for performance audits is contained within the *Public Finance and Audit Act 1983, Part 3 Division 2A*, (the Act) which differentiates such work from the Office's financial statements audit function.

Performance audits are not entitled to question the merits of policy objectives of the Government.

What conducts performance audits?

Performance audits are conducted by specialist performance auditors who are drawn from a wide range of professional disciplines.

How do we choose our topics?

Topics for performance audits are chosen from a variety of sources including:
- our own research on emerging issues
- suggestions from Parliamentarians, agency Chief Executive Officers (CEO) and members of the public
- complaints about waste of pubic money
- referrals from Parliament.

Each potential audit topic is considered and evaluated in terms of possible benefits including cost savings, impact and improvements in public administration.

The Audit Office has no jurisdiction over local government and cannot review issues relating to council activities.

If you wish to find out what performance audits are currently in progress just visit our website at www.audit.nsw.gov.au.

How do we conduct performance audits?

Performance audits are conducted in compliance with relevant Australian standards for performance auditing and operate under a quality management system certified under international quality standard ISO 9001.

Our policy is to conduct these audits on a "no surprise" basis.

Operational managers, and where necessary executive officers, are informed of the progress with the audit on a continuous basis.

What are the phases in performance auditing?

Performance audits have three key phases: planning, fieldwork and report writing.

During the planning phase, the audit team will develop audit criteria and define the audit field work.

At the completion of field work an exit interview is held with agency management to discuss all significant matters arising out of the audit. The basis for the exit interview is generally a draft performance audit report.

The exit interview serves to ensure that facts presented I in the report are accurate and that recommendations are appropriate. Following the exit interview, a format draft report is provided to the CEO for comment. The relevant Minister is also provided with a copy of the draft report. The final report, which is tabled in Parliament, includes any comment made by the CEO on the conclusion and the recommendations of the audit.

Depending on the scope of an audit, performance audits can take from several months to a year to complete.

Copies of our performance audit reports can be obtained from our website or by contacting our publications unit.

How do we measure an agency's performance?

During the planning stage of an audit the team develops the audit criteria. These are standards of performance against which an agency is assessed. Criteria may be based on government targets or benchmarks, comparative data, published guidelines, agencies corporate objectives or examples of best practice.

Performance audits look at:
- processes
- results
- costs
- due process and accountability.

Do we check to see if recommendations have been implemented?

Every few years we conduct a follow-up audit of past performance audit reports. These follow-up audits look at the extent to which recommendations have been implemented and whether problems have been addressed.

The Public Accounts Committee (PAC) may also conduct reviews or hold inquiries into matters raised in performance audit reports. Agencies are also required to report actions taken against each recommendation in their annual report.

To assist agencies to monitor and report on the implementation of recommendations, the Audit Office has prepared a Guide for that purpose. The Guide, *Monitoring and Reporting on Performance Audits Recommendations*, is on the Internet at www.audit.nsw.gov.au/guides-bp/bpglist.htm

Who audits the auditors?

Our performance audits are subject to internal and external quality reviews against relevant Australian and international standards. This includes ongoing independent certification of our ISO 9001 quality management system.

The PAC is also responsible for overseeing the activities of the Adit Office and conducts reviews of our operations every three years.

Who pays for performance audits?

No fee is charged for performance audits. Our performance audit services are funded by the NSW Parliament and from internal sources.

For further information relating to performance auditing contact:

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Performance Audit Reports

No	Agency or Issues Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
65	Attorney General's Department	*Management of Court Waiting Times*	3 September 1999
66	Office of the Protective Commissioner Office of the Public Guardian	*Complaints and Review Processes*	28 September 1999
67	University of Western Sydney	*Administrative Arrangements*	17 November 1999
68	NSW Police Service	*Enforcement of Street Parking*	24 November 1999
69	Roads and Traffic Authority of NSW	*Planning for Road Maintenance*	1 December 1999
70	NSW Police Service	*Staff Rostering, Tasking and Allocation*	31 January 2000
71*	Academics' Paid Outside Work	*Administrative Procedures Protection of Intellectual Property Minimum Standard Checklists Better Practice Examples*	7 February 2000
72	Hospital Emergency Departments	*Delivering Services to Patients*	15 March 2000
73	Department of Education and Training	*Using Computers in Schools for Teaching and Learning*	7 June 2000
74	Ageing and Disability Department	*Group Homes for People with Disabilities in NSW*	27 June 2000
75	NSW Department of Transport	*Management of Road Passenger Transport Regulation*	6 September 2000
76	Judging Performance from Annual Reports	*Review of Eight Agencies' Annual Reports*	29 November 2000
77*	Reporting Performance	*Better Practice Guide A guide to preparing performance information for annual reports*	29 November 2000
78	State Rail Authority (CityRail) State Transit Authority	*Fare Evasion on Public Transport*	6 December 2000
79	TAFE NSW	*Review of Administration*	6 February 2001
80	Ambulance Service of New South Wales	*Readiness to Respond*	7 March 2001
81	Department of Housing	*Maintenance of Public Housing*	11 April 2001
82	Environment Protection Authority	*Controlling and Reducing Pollution from Industry*	18 April 2001
83	Department of Corrective Services	*NSW Correctional Industries*	13 June 2001
84	Follow-up of Performance Audits	*Police Response to Calls for Assistance The Levying and Collection of Land Tax Coordination of Bushfire Fighting Activities*	20 June 2001

No	Agency or Issues Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
85*	Internal Financial Reporting	*Internal Financial Reporting including a Better Practice Guide*	27 June 2001
86	Follow-up of Performance Audits	*The School Accountability and Improvement Model (May 1999) The Management of Court Waiting Times (September 1999)*	14 September 2001
87	E-government	*Use of the Internet and Related Technologies to Improve Public Sector Performance*	19 September 2001
88*	E-government	*e-ready, e-steady, e-government: e-government readiness assessment guide*	19 September 2001
89	Intellectual Property	*Management of Intellectual Property*	17 October 2001
90*	Intellectual Property	*Better Practice Guide Management of Intellectual Property*	17 October 2001
91	University of New South Wales	*Educational Testing Centre*	21 November 2001
92	Department of Urban Affairs and Planning	*Environmental Impact Assessment of Major Projects*	28 November 2001
93	Department of Information Technology and Management	*Government Property Register*	31 January 2002
94	State Debt Recovery Office	*Collecting Outstanding Fines and Penalties*	17 April 2002
95	Roads and Traffic Authority	*Managing Environmental Issues*	29 April 2002
96	NSW Agriculture	*Managing Animal Disease Emergencies*	8 May 2002
97	State Transit Authority Department of Transport	*Bus Maintenance and Bus Contracts*	29 May 2002
98	Risk Management	*Managing Risk in the NSW Public Sector*	19 June 2002
99	E-Government	*User-friendliness of Websites*	26 June 2002
100	NSW Police Department of Corrective Services	*Managing Sick Leave*	23 July 2002
101	Department of Land and Water Conservation	*Regulating the Clearing of Native Vegetation*	20 August 2002
102	E-government	*Electronic Procurement of Hospital Supplies*	25 September 2002
103	NSW Public Sector	*Outsourcing Information Technology*	23 October 2002
104	Ministry for the Arts Department of Community Services Department of Sport and Recreation	*Managing Grants*	4 December 2002

No	Agency or Issues Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
105	Department of Health Including Area Health Services and Hospitals	*Managing Hospital Waste*	10 December 2002
106	State Rail Authority	*CityRail Passenger Security*	12 February 2003
107	NSW Agriculture	*Implementing the Ovine Johne's Disease Program*	26 February 2003
108	Department of Sustainable Natural Resources Environment Protection Authority	*Protecting Our Rivers*	7 May 2003
109	Department of Education and Training	*Managing Teacher Performance*	14 May 2003
110	NSW Police	*The Police Assistance Line*	5 June 2003
111	E-Government	*Roads and Traffic Authority Delivering Services Online*	11 June 2003
112	State Rail Authority	*The Millennium Train Project*	17 June 2003
113	Sydney Water Corporation	*Northside Storage Tunnel Project*	24 July 2003
114	Ministry of Transport Premier's Department Department of Education and Training	*Freedom of Information*	28 August 2003
115	NSW Police NSW Roads and Traffic Authority	*Dealing with Unlicensed and Unregistered Driving*	4 September 2003
116	NSW Department of Health	*Waiting Times for Elective Surgery in Public Hospitals*	18 September 2003
117	Follow-up of Performance Audits	*Complaints and Review Processes (September 1999) Provision of Industry Assistance (December 1998)*	24 September 2003
118	Judging Performance from Annual Reports	*Review of Eight Agencies' Annual Reports*	1 October 2003
119	Asset Disposal	*Disposal of Sydney Harbour Foreshore Land*	26 November 2003
120	Follow-up of Performance Audits NSW Police	*Enforcement of Street Parking (1999) Staff Rostering, Tasking and Allocation (2000)*	10 December 2003
121	Department of Health NSW Ambulance Service	*Code Red: Hospital Emergency Departments*	15 December 2003
122	Follow-up of Performance Audit	*Controlling and Reducing Pollution from Industry (April 2001)*	12 May 2004
123	National Parks and Wildlife Service	*Managing Natural and Cultural Heritage in Parks and Reserves*	16 June 2004

No	Agency or Issues Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
124	Fleet Management	*Meeting Business Needs*	30 June 2004
125	Department of Health NSW Ambulance Service	*Transporting and Treating Emergency Patients*	28 July 2004
126	Department of Education and Training	*School Annual Reports*	15 September 2004
127	Department of Ageing, Disability and Home Care	*Home Care Service*	13 October 2004
128*	Department of Commerce	*Shared Corporate Services: Realising the Benefit* *including guidance on better practice*	3 November 2004
129	Follow-up of Performance Audit	*Environmental Impact Assessment of Major Projects (2001)*	1 February 2005
130*	Fraud Control	*Current Progress and Future Directions* *including guidance on better practice*	9 February 2005
131	Follow-up of Performance Audit Department of Housing	*Maintenance of Public Housing (2001)*	2 March 2005
132	Follow-up of Performance Audit State Debt Recovery Office	*Collecting Outstanding Fines and Penalties (2002)*	17 March 2005
133	Follow-up of Performance Audit	*Management of Intellectual Property (2001)*	March 2005

* Better Practice Guides

Performance Audits on our website

A list of performance audits tabled or published since March 1997, as well as those currently in progress, can be found on our website www.audit.nsw.gov.au

If you have any problems accessing these Reports, or are seeking older Reports, please contact our Executive Officer on 9275 7220.