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Public Accounts Committee

MANAGING ANIMAL AND PLANT DISEASES

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Charter of the Committee

The Public Accounts Committee has responsibilities under Part 4 of the Public Finance and Audit Act 1983 to inquire into and report on activities of Government that are reported in the Total State Sector Accounts and the accounts of the State's authorities.

The Committee, which was first established in 1902, scrutinises the actions of the Executive Branch of Government on behalf of the Legislative Assembly.

The Committee recommends improvements to the efficiency and effectiveness of government activities. A key part of committee activity is following up aspects of the Auditor-General's reports to Parliament. The Committee may also receive referrals from Ministers to undertake inquiries. Evidence is gathered primarily through public hearings and submissions. As the Committee is an extension of the Legislative Assembly, its proceedings and reports are subject to Parliamentary privilege.

Terms of Reference

On 29 March 2006, the Public Accounts Committee resolved to conduct a follow-up inquiry on the Auditor-General's reports, *NSW Agriculture: Managing Animal Disease Emergencies* and *Implementing the Ovine Johne's Disease Program* with the following Terms of Reference:

The Committee will examine:

1. Implementation of the reports' recommendations and their relevance under current administrative arrangements.

2. The State's preparedness to manage animal and plant disease emergencies, particularly with respect to:

    - Risk-based planning and disease surveillance;
    - The effectiveness of immediate response mechanisms;
    - Intergovernmental cooperation and the State's compliance with national standards; and
    - Cost sharing arrangements between industry and Government.

3. The effectiveness and efficiency of the management of endemic diseases, including the roles of government and industry.

4. Any other related matters.

Chair's Foreword

I am pleased to present this report of the Committee's inquiry into the management of animal and plant pests and diseases in New South Wales.

This inquiry was prompted by two Audit Office performance audits from 2002 and 2003 into the management of emergency animal diseases and the implementation of the Ovine Johne's Disease Program. The Committee used these as the starting points to an examination of the overall efficiency and effectiveness of how New South Wales manages animal and plant pest and diseases.

The agricultural sector is of significant economic importance, with production worth around $8 billion in New South Wales each year. Governments and industry both have roles to play in maintaining "biosecurity", or measures that prevent diseases and pests from spreading. Minimising the effects of disease and pest incursions is vital for preserving the State's disease-free status with interstate and international trading partners.

The Committee acknowledges that prevention is far better than a cure: no-one wants to see an outbreak of Foot and Mouth Disease in Australia like the one that devastated British agriculture in 2001, led to the destruction of millions of animals and cost several billion pounds to stamp out.

Throughout this inquiry, the Committee endeavoured to assess the Government's performance both in responding to emergencies, which was described by one official as "wartime", as well as more routine "peacetime" activities, such as collecting surveillance information and managing non-emergency diseases. The New South Wales Government has devoted considerable effort to preparation for emergency incursions and is unique amongst Australia's States and Territories in having a dedicated plant pest and animal disease first response team that can be called into action at very short notice for a wide range of emergencies. The State has shown that it can perform well in simulated emergency exercises.

The Committee was also keen to learn about the potential impacts on human health of animal diseases such as avian influenza or "bird flu". We were reassured to find that the Government is making huge efforts to be prepared should an outbreak occur. Evidence suggests that the State has the capacity to respond to suspected human cases of avian influenza extremely quickly and effectively.

However, gaps remain in the planning and maintenance of training levels. The Committee was concerned that, while strategies for surveillance activities were based on risk management principles, the level of resources available was variable and user charging for some tests could lead to a lack of willingness by producers to submit samples. The Committee recommended that the Government strengthen links with producers, particularly in the pig and poultry industries and with small, non-professional producers who tend to be less informed about pest and disease risks. The relationship between the Department of Primary Industries and the Rural Lands Protection Boards also needs clarification. The Committee was, however, reassured that the Government has access to the skills and

resources to develop an appropriate response to a hitherto unknown disease extremely quickly once it was reported.

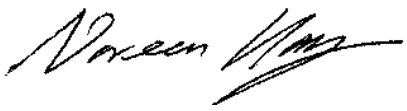
The Committee examined how the Ovine Johne's Disease program was performing and notes that, while the current program appears to have a higher level of acceptance than the much criticised program it replaced in 2004, it is too soon to assess its performance completely. Damage to the reputation of the Government remains in some quarters and much effort will be required to build trust with producers again.

The Committee notes that there are many consultative arrangements between government and industry for developing plant and animal health issues and trusts that these are effective in gaining acceptance for regulatory activity for new diseases. It is hoped that new governance arrangements for managing industry levies for disease control programs will improve the level of accountability of these programs in the future.

While most of the information the Committee received in the course of this inquiry related to animal health issues, we tried to include plant health issues where they were relevant. The recent outbreak of sugarcane smut in Queensland demonstrates that the economic risks associated with horticultural disease outbreaks.

I would like to thank all the groups and individuals who participated in this inquiry. The Committee was disappointed in the relatively low level of interest in this inquiry by the agricultural industry, despite us advertising in both the metropolitan and rural press and writing directly to key industry groups. Some organisations were unwilling to appear before the Committee in hearings. For this reason, Committee found it difficult to assess the effectiveness of Government action in some areas.

I would also like to thank Vicki Buchbach and Simon Kennedy of the Committee's secretariat for preparing this Report.



Noreen Hay MP
Chair

List of Findings and Recommendations

Risk Management

On the basis of evidence before it, the Committee believes that the New South Government has adopted a comprehensive risk management approach to managing animal pests and diseases. It has appropriate tools in place to assess, treat and respond to risks in managing animal pests and diseases. The use of these tools should lead to more robust management plans for both emergency and non-emergency activities.

Update planning documents to suit changing circumstances

An essential component of risk management is ensuring that response plans are maintained and updated. New South Wales is working with other jurisdictions at a national level to update planning documents in response to changing circumstances. However, the Committee considers that the complexity of the planning process requires constant management to maintain the currency of plans and supporting procedures. As the lead agency for emergency animal responses, the Department of Primary Industries should take a leadership role in the review process, including encouraging all participants with defined roles in emergency response to develop and review Standard Operating Procedures.

RECOMMENDATION 1: That the Department of Primary Industries incorporates reviews of plans and operating procedures as a result of emergency incidents and exercises and ensures that there is adequate commitment from all participants in the review process.

Gaps In Planning

The Committee finds that some gaps in the planning process identified by the Auditor-General in the Performance Audit *Managing Animal Disease Emergencies* still remain. These were the development of Memoranda of Understanding (MOUs) with neighbouring jurisdictions on cross-border issues and in maintaining public support for possible sites for the disposal of large numbers of carcasses.

The Committee acknowledges that the Department of Primary Industries is conscious that the resolution of cross border issues requires more effort. However it is a matter of concern that these MOUs have not yet been finalised in the four years since the Performance Audit.

RECOMMENDATION 2: In order to improve the response to animal health emergencies, that the Department of Primary Industries prioritise the finalisation of Memoranda of Understanding with the four jurisdictions bordering New South Wales.

The Department has worked to identify up to 82 sites for the disposal of carcasses and has investigated alternative methods of disposal. However, the Committee notes the importance of communicating openly and often with the industry and the community in order to maintain public confidence in emergency disease planning.

RECOMMENDATION 3: The Department of Primary Industries continue to consult local community about emergency planning and sites for disposal to retain confidence in the event of a genuine emergency.

Simulated Emergency Exercises

The Committee finds that the New South Wales Government has committed a significant level of resources to developing a cooperative whole-of-government response structure to emergency disease management. In Exercise Eleusis, the Government demonstrated that its level of preparedness for an outbreak of avian influenza was as least as good as in other jurisdictions.

In March 2006, NSW agencies participated in Exercise Rawhide in March 2006 which tested the capacity to respond to the release of Foot and Mouth Disease as part of a terrorist attack in Queensland. No evaluation reports will be produced as a result of this exercise because of security concerns. The Committee acknowledges the sensitivity of some aspects of these exercises, but finds that there is benefit in producing public reports on such exercises in order to improve public confidence in the Government's performance and to account for the use of resources.

RECOMMENDATION 4: That, as a matter of principle, the NSW Government provide public reports on the lessons learned from emergency exercises which it manages or in which it participates. If necessary, such reports should exclude material which might jeopardise security.

Effectiveness of Immediate Response

The Health portfolio has recently demonstrated that it is able to respond extremely quickly to a passenger arriving from overseas with suspected avian influenza by isolating the patient and conducting pathological tests within a few hours.

The Committee remains concerned that the relationship between the Department of Primary Industries and the Rural Lands Protection Boards needs effort on both sides to maintain commitment to emergency animal health readiness. As professional staff committed to performing their roles well, frontline staff need support from within their Boards to prepare for emergencies.

Procedures are now in place during actual or simulated emergencies to delegate the Chief Veterinary Officer's (CVO's) managerial responsibilities to one of three deputies. The effectiveness of these arrangements has been tested in exercises. The Committee is satisfied that this has resolved the potential conflict in the roles of the CVO and the holder of the position now has the authority to perform the duties required in an emergency.

On the basis of the evidence before it, the Committee concludes that the immediate response capacity to deal with an emergency animal disease outbreak is reasonably effective and possibly superior to the capacity of some other jurisdictions. However, there is a gap in the measurement of this performance which should be reported at a both a state and national level.

RECOMMENDATION 5: That the Department's performance against tactical and strategic benchmarks be regularly reported in annual reports or animal and plant health emergency evaluation reports and compared to other jurisdictions where possible.

Effectiveness of Surveillance
The Committee notes that the Department's *Animal Health Surveillance Operational Plan* did not include information on the surveillance effort by Rural Lands Protection Board staff. It considers that unless surveillance activities performed by frontline staff are integrated with the activities of other surveillance programs and the private sector, the effectiveness of surveillance could be compromised. This lack of knowledge within the Department's own surveillance plan of the level of surveillance activity in particular regions is a cause for concern unless it considered as part of the risk management process.

Impact of User Charging
The Committee finds that the user charging policy has the potential to discourage producers from submitting samples for testing and could contribute to a decline in the surveillance capacity of the State. This decline should be addressed by increasing targeted surveillance in areas of highest risk. However the Committee considers that, in times of low farm incomes, such as the current drought, there should be some discretion in the application of user charging policies.

RECOMMENDATION 6: That the Department of Primary Industries consider applying discretion to the use of user charging policies for testing in times when farm incomes are affected by external circumstances such as widespread drought.

Surveillance Funding
The Committee is concerned that the level of funding provided to District Veterinarians by the Department of Primary Industries has been reduced from $3,000 to $2,500 per year. Investment in surveillance activities can provide significant benefits at low cost.

RECOMMENDATION 7: That the Department of Primary Industries restore the level of discretionary testing funds provided to District Veterinarians to previous levels and maintain these in the future in real terms.

TSE submissions

Ongoing action by the Department of Primary Industries is required to ensure that public and private sector veterinarians submit a representative sample of brain tissue from cattle and sheep to the national Transmissible Spongiform Encephalopathy surveillance program.

RECOMMENDATION 8: That the Department of Primary Industries make every effort to meet its targets for the TSE program and encourage public and private sector veterinarians across the State to submit samples. The Department should include reports on its performance against these targets in annual reports.

Reporting on Surveillance
The Department of Primary Industries' internal surveillance plan reports on the level of surveillance activities in each region of the state. This indicates that the level is being monitored as part of the annual planning process. The Department is employing the appropriate processes to allocate scarce resources to areas where they are likely to make the greatest impact and reviewing the effectiveness of these allocations.

Veterinary Numbers

The Committee acknowledges concerns over potential shortages of rural veterinarians because of an ageing workforce and difficulty in attracting newly trained veterinarians to livestock practices. The need to develop and retain a workforce is common across many professional groups and the Committee commends the Department for participating in efforts to improve the level of services available to the agricultural industry by encouraging students to participate in work experience programs. The Committee notes that the new veterinary course at Charles Sturt University is targeted at students from rural backgrounds. In the longer term, this program should improve availability of qualified, motivated rural veterinarians. It is also hoped that the Department can address the potential shortage of veterinary pathologists and agronomists within its testing facilities by positive recruitment actions.

RECOMMENDATION 9: That the Department of Primary Industries address the forthcoming potential shortage of veterinary pathologists and agronomists within its testing facilities by positive recruitment actions over the next five years such as offering scholarships or training existing professional staff to develop skills in pathology.

The Committee encourages the Department to continue with these efforts to use the skills of private sector vets to strengthen the emergency response in the Australian Veterinary Reserve and the Accreditation Program for Australian Veterinarians.

RECOMMENDATION 10: That the Department of Primary Industries should continue efforts to develop the skills of private sector veterinarians to increase the level of resources available in emergency responses.

Training

The Committee acknowledges that the Department of Primary Industries is committed to maximising the emergency preparedness of the State, however, it is vital to ensure that District Veterinarians are trained in emergency animal health as soon after recruitment as possible and that this training is refreshed as often as required.

RECOMMENDATION 11: That emergency animal health training be included in induction programs for newly recruited District Veterinarians and all District Veterinarians be encouraged to maintain their skills by attending regular refresher training as appropriate.

The Committee commends the Department for its efforts in recruiting Industry Liaison Officers as contact points for industry during emergency disease outbreaks. It considers that it is of vital importance to ensure that these Officers are trained appropriately and that regular contact with them is maintained to support them and to ensure their continued participation.

RECOMMENDATION 12: That the Department of Primary Industries be conscious of its responsibilities in maintaining the continued enthusiasm of Industry Liaison Officers and offer training and refresher training as required.

Information Systems
Readily available, high quality information about the prevalence of diseases and pests is an essential tool for developing a risk assessment process is. Information systems supporting surveillance activities are crucial. During an emergency response, this is even more important so that reliable current information about the location and prevalence of an outbreak can be monitored and updated. Daily activities, such as response actions, need to be entered so that timely reports can be produced. There are both technical and resource aspects to ensuring that these systems are in place. The Committee finds that there are processes at state and national level to improve the operation of information systems and that this issue is close to resolution.

Feeding Swill to Pigs
Feeding pigs "swill" (untreated food waste containing meat) is a major disease risk and has been illegal for many years. The Committee is satisfied that the Department of Primary Industries inspectors have adequate powers to investigate and prosecute individuals who may be feeding pigs with inappropriate substances. However, there remains a gap in that it is not a specific offence to supply prohibited products to someone else to feed to pigs. Because a significant minority of the pig industry consists of small producers with limited knowledge of exotic diseases, stricter regulation of the other end of the supply chain is warranted.

RECOMMENDATION 13: That the Minister for Primary Industries consider amending the *Stock Diseases Act 1923* to ban the supply of waste swill to pig owners by food retailing businesses such as bakeries, restaurants and supermarkets.

Pig Industry
A potential gap in the level of surveillance is the lack of interaction between the government veterinarians and the pig industry. Private veterinarians are used in this industry and there is no specialist liaison officer within the Department of Primary Industries.

RECOMMENDATION 14: That the Department of Primary Industries should endeavour to improve its knowledge and skills base in the pig industry by recruiting a specialist pig industry liaison officer.

Poultry Industry
The Department of Primary Industries has a specialist poultry veterinarian. The Committee considers that this position is of importance to maintain an effective relationship with the industry about poultry health issues.

RECOMMENDATION 15: That the Department of Primary Industries should ensure that it retains the services of a specialist poultry industry liaison officer in the future.

Small Producers
Small, part-time primary producers tend to be less informed about the risks of animal and plant pests and diseases. The Committee appreciates that it can be difficult to communicate with a diverse group of non-professional landholders but finds that their lack of knowledge could contribute to the seriousness of a pest or disease outbreak and undermine the efforts of other producers.

RECOMMENDATION 16: That the Department of Primary Industries and Rural Lands Protection Boards employ outreach activities to alert these small producers to their responsibilities and improve their awareness of animal and plant pests and diseases.

Wildlife Surveillance

One of the most likely ways that dangerous strains of avian influenza may enter Australia is through migrating flocks of wild birds. There are other diseases transmissible from wildlife to stock animals or people, such as Menangle disease, Hendra virus and Lyssavirus which are all transmitted by bats.

The Department of Environment and Conservation conducts passive surveillance and mortality investigations of wildlife and works with other agencies including the Department of Primary Industries and NSW Health on active surveillance of identified high risk species. Given the high level of public concern about possible disease incursions, it is appropriate that these activities are undertaken in the context of managing the risks of disease outbreaks.

National Livestock Identification Scheme (NLIS)

The Committee considers that the NLIS is a valuable tool for tracing animals and of vital assistance in the event of a disease incursion. It has been introduced for cattle and is in the implementation stage for sheep and goats. Plans are underway to develop a system for pigs. The Committee notes that some producers are not happy with the current cattle scheme but that there are processes underway at national level to address the accuracy of the system. The sheep system will be reviewed in 2007. The Committee trusts that processes to develop an NLIS for the pig industry considers ways to improve the current issues with animal traceability within the industry and demonstrates that the benefits of any NLIS would outweigh the costs.

Funding of Animal and Plant Health

At the time of the hearings, the Department of Primary Industries and Rural Lands Protection Boards were negotiating whether the salary costs of Board staff could be recouped under the emergency disease cost sharing deed as it was unclear whether these employees were considered "government employees" in an emergency response. The Committee notes that negotiations are still underway and trusts that these arrangements can be clarified to the satisfaction of all parties.

The current cost sharing deeds for animal disease emergencies and plant pests seem to provide an effective, open and consultative way for industry and government to define their respective responsibilities for funding of emergency disease and pest responses. The Committee considers that these intergovernmental agreements are well designed. On the basis of the evidence before it, the Committee considers that, in practice, the national emergency agreements are reasonably effective in responding quickly to an identified emergency.

The Committee was reassured that there are systems in place for addressing unexpected funding shortfalls caused by responding to disease and pest outbreaks so that the Department of Primary Industries can ask for supplementary funding when it has exhausted its contingency funding of $500,000 a year. NSW Treasury and the Department are working to improve contingency planning and regularly discuss possible outbreaks in other jurisdictions that may spread to New South Wales.

The Committee is confident that processes are in place for the Government to consult with relevant industry bodies about the level of resources required to treat emergency outbreaks and can provide assistance if required to meet funding shortfalls so other activities are not compromised.

Rural Lands Protection Boards are unable to collect animal health rates from the poultry industry because the legislation does not provide for this. Funds spent on poultry surveillance and investigations could be diverted from other animal health activities. The Memorandum of Understanding between the Department of Primary Industries and the State Council of RLPBs is currently under review.

RECOMMENDATION 17: The Committee encourages the Department and the Rural Land Protection Boards to discuss the need for funding of poultry surveillance activities in the context of reviewing the Memorandum of Understanding between the two parties.

While some sectors of the industry are concerned with Government's expectation that primary producers will contribute funds to the management of animal diseases, the Committee considers this is in accordance with the economic principle that the beneficiaries of services should pay for them. The processes for establishing disease control funds require the consultation and commitment of affected producers and have robust accountability processes.

Ovine Johne's Disease

The Committee finds that the original OJD Program endured a difficult implementation but many problematic issues were addressed through the introduction of the new Program in 2004. However, while it may be too early for the new Program to be comprehensively evaluated, the Committee emphasises the importance for continued progress to be made in areas of concern.

The Committee finds that information provided by Sheep Health Statements is not being used effectively by some producers in purchasing stock.

RECOMMENDATION 18: That the Department of Primary Industries should continue to raise awareness among producers of OJD risks and the operation of Sheep Health Statements.

On the basis of the evidence before it the Committee finds there is a high level of acceptance by producers of the exclusion zone system. However, despite major improvements to the management of OJD since the completion of the original program, it is clear from evidence presented during this inquiry that considerable resentment remains among producers. The Committee emphasises the importance of the Government continuing to build levels of trust with producers and to improve communication to maximise the effectiveness of the new Program and, indirectly, the effectiveness of other disease programs.

RECOMMENDATION 19: That the Department of Primary Industries continue to pursue improvements to consultation with industry and accountability mechanisms to further build trust between industry and government, thereby enhancing the effectiveness of the OJD Program.

The Committee notes that the new governance arrangements for the OJD Program include the appointment of a Fund Administrator. The same requirement will apply to any future disease control program. The Committee is concerned that producers may have been unable to readily access information regarding the expenditure of levies for the OJD Program and other animal health programs, particularly when multiple sources of funding are involved.

RECOMMENDATION 20: That the Department of Primary Industries should provide specific information on levies to contributing producers through a separate document, rather than rely on standard audit documents and annual reporting requirements.

Endemic Diseases

Rural Lands Protection Boards have a crucial responsibility in protecting New South Wales from major outbreaks of animal diseases and pests. The Committee considers the effectiveness of appropriate state-wide and national endemic diseases control programs can be limited by tension within Boards caused by balancing core and local programs. In negotiating the new Memorandum of Understanding between the Department of Primary Industries and the RLPBs, the Department should clarify the respective roles to the satisfaction of both parties.

RECOMMENDATION 21: That the Department of Primary Industries should complete a review of the Memorandum of Understanding and ensure the roles of the Department and Rural Lands Protection Boards are more clearly identified outlined for effective delivery of animal health programs.

RECOMMENDATION 22: That the Department of Primary Industries should ensure the roles and capacities of Rural Lands Protection Boards and industry are effectively monitored to enable assessment of the effectiveness of animal health programs.

Emerging Diseases

The Committee is reasonably confident, on the basis of the evidence, before it that the New South Wales Government has the systems in place to deal with new and emerging threats once they are identified through active or passive surveillance programs.

Glossary and List of Abbreviations

APAV	Accreditation Program for Australian Veterinary Practitioners
AQIS	Australian Quarantine and Inspection Service
Arbovirus	A virus spread by an arthropod (eg a mosquito or a tick)
Avian influenza	A virus affecting birds. Some strains also affect humans
AUSVETPLAN	Australian Veterinary Emergency Plan
Biosecurity	A set of measures designed to protect a population from transmissible infectious agents at national, regional and individual farm level.
BIOSIRT	Biosecurity, Surveillance, Incident Response and Tracing application
BJD	Bovine Johne's Disease – a wasting disease affecting cattle, deer and other similar animals
BSE	Bovine Spongiform Encephalopathy
CVO	Chief Veterinary Officer
DAFFA	Department of Agriculture, Fisheries and Forestry (Australia)
DPI	Department of Primary Industries
Emerging disease	Disease previously unknown in a jurisdiction. Can be exotic. Can later be recognised as endemic.
Endemic disease	Disease that may be found in Australian stock animals that may be the subject of disease control programs - Listed in the *Stock Diseases Act 1923*
Exotic disease	Disease not normally found in Australia - Listed in the *Exotic Diseases of Animals Act 1991*
FMD	Foot and Mouth Disease
NOJDP	National Ovine Johne's Disease Program
NAOJD	National Approach to the Management of Ovine Johne's Disease
NLIS	National Livestock Identification Scheme -
OIE	Office International des Epizooties – international organisation for animal health – responsible for developing international standards
OJD	Ovine Johne's Disease – a wasting disease of sheep
RLPB	Rural Lands Protection Board – one of 47 local Boards with various functions defined under the *Rural Lands Protection Act 1998*
Swill	Waste products containing inappropriately treated meat products that may transmit diseases to pigs.
Zoonosis	A type of disease that can be transmitted to humans from animals

Chapter One - Introduction

1.1 The Committee has the power under section 57(1) of the *Public Finance and Audit Act 1983* to examine any report of the Auditor-General laid before the Legislative Assembly.

1.2 In 2002 and 2003 the Auditor General completed two performance audits of the management of animal diseases in New South Wales. These were:

- *Managing Animal Disease Emergencies* (2002); and
- *Implementation of the Ovine Johne's Disease Program* (2003)

INQUIRY PROCESS

1.3 The Committee resolved to follow up issues raised in these reports in order to test the level of implementation of the recommendations by the Department of Primary Industries. There had been significant administrative change since the reports were completed, including a restructure of the relevant agencies and the replacement of the National Ovine Johne's Disease Program (NOJDP) with the National Approach to the Management of Ovine Johne's Disease (NAOJD). The Committee decided to develop broad terms of reference to consider the effectiveness and efficiency of the State's current arrangements for biosecurity. For this reason, the inquiry examines the new Ovine Johne's Disease program as well as testing the effectiveness and efficiency of the administrative and policy systems used to manage emergency and endemic diseases and pests in both plants and animals.

1.4 Accordingly, on 29 March 2006, the Committee resolved to examine:

1. Implementation of the reports' recommendations and their relevance under current administrative arrangements.
2. The State's preparedness to manage animal and plant disease emergencies, particularly with respect to:
   - Risk-based planning and disease surveillance;
   - The effectiveness of immediate response mechanisms;
   - Intergovernmental cooperation and the State's compliance with national standards; and
   - Cost sharing arrangements between industry and Government.
3. The effectiveness and efficiency of the management of endemic diseases, including the roles of government and industry.
4. Any other related matters.

1.5 The Committee called for submissions by advertising in the metropolitan and rural press and by writing to key stakeholders in animal and plant health. Fifteen submissions were made. These are listed at Appendix 1 and are available from the Committee's website www.parliament.nsw.gov.au/publicaccounts.

1.6 The Committee held public hearings on 7 and 8 August 2006. A list of witnesses is at Appendix 2 and the transcripts of these hearings are also available from the Committee's website.

1.7 This Report was considered by the Committee at a meeting on 22 November 2006, when it adopted the Report and agreed to table it.

STRUCTURE OF THE REPORT

1.8 Chapter Two provides an outline of the arrangements for managing animal and plant pests and diseases in New South Wales. The remainder of the Report is in two Parts. Part One consists of Chapters Three to Seven. These discuss the way the State's management of animal and plant disease emergencies, although some of these issues are also relevant to non-emergency management.

1.9 Part Two deals specifically with emerging and endemic diseases which are not emergencies. Chapter Eight focuses on the management of Johne's Disease which, in recent years, has moved from being considered an emerging disease in New South Wales, to an endemic one. Chapter Nine discusses managing endemic diseases and pests and the final Chapter tests whether the State is equipped to identify and respond to new emerging diseases.

Chapter Two - Managing Animal and Plant Diseases in New South Wales

2.1 This Chapter discusses the rationale for government intervention in the management of animal and plant pests and diseases. It describes how the Commonwealth, State and industry bodies work together to develop policies and programs and how these are applied in New South Wales.

2.2 While the Report discusses the national and international arrangements, the Committee is only examining the effectiveness of the New South Wales agencies.

Economic Importance Of Primary Industries

2.3 Each year, New South Wales produces agricultural products worth several billion dollars. Even in the current drought, the New South Wales Government estimates this production to be in the order of $8 billion at the farm gate.[1] In 2003-04, New South Wales exported $94 millions worth of dairy products, $647 million worth of wool. $921 million in livestock, $356 million in meat and around $891 million in crops such as wheat.[2]

2.4 Australia has a reputation as a relatively disease-free agricultural producer and programs to maintain the confidence of trading partners are crucial to retain the national share of highly competitive international markets.

2.5 The importance of primary industries means it is far preferable to prevent disease outbreaks than be forced to respond after the fact. The 2001 outbreak of Foot and Mouth Disease in the United Kingdom led to the destruction of six million cattle and had a net cost of £2.7 billion.[3] There were also huge impacts on tourism and trade. The Productivity Commission estimated in 2002 that, if there was an outbreak of Foot and Mouth Disease in Australia, loss of revenue to the livestock industry would range from $5.7 billion to $12.8 billion. In New South Wales alone, the impact would range from$1.6 billion to $3.5 billion.[4]

Threats to Human Health

2.6 Diseases of plants and animals can affect human health, either by destroying valuable food sources or, more directly, by infecting people. Animal diseases that can infect people are called "zoonotic diseases". For instance, humans can catch bovine spongiform encephalopathy (BSE or "mad cow disease") from eating meat from infected animals. Dr Jeremy McAnulty, Director Communicable Diseases Branch for NSW Health described these sorts of diseases and efforts made to manage them to the Committee:

> **Dr McANULTY:** There has been a long history through the millennia of human diseases coming from animals. It is thought that many common diseases we get now originally came from animals and jumped the species maybe thousands and thousands of years

[1] Whole of Government, Submission No.14, p2
[2] *ibid.,* p21
[3] House of Commons Committee on Public Accounts, 2005, *Foot and Mouth Disease: Applying the Lessons*, p3
[4] Productivity Commission, 2002, *Impact of an FMD Outbreak in Australia,* Canberra, ppxxiii-xxv

> ago. There are a sub-class of diseases that are thankfully fairly rare in New South Wales and Australia that we classify as zoonosis which are primarily animal diseases that sometimes spill over into humans. We have a system of trying to monitor those diseases through surveillance whereby under the Public Health Act diagnosis of those conditions are reportable to NSW Health. They include things like bovine tuberculosis, brucellosis, Q fever, leptospirosis and a number of others.
>
> In addition, in the past decade or so there has been a couple of new diseases identified in Australia that have come from animals that have affected humans. In Queensland there was Hendra virus. In New South Wales and Queensland there was lyssavirus which is a rabies like disease. In New South Wales there was Menangle virus which was derived from pigs. In each of those instances we have worked closely with the Department of Agriculture, at the time, to identify and control the risk. No doubt that will continue in the future because history shows around the world that I think on average about one new disease each year is identified, a large proportion coming from animals.[5]

Avian Influenza

2.7 One potentially devastating disease could arise if a particularly virulent strain of avian influenza, the H5N1 virus, mutates in a way to infect humans more easily. At the moment this virus is only transmissible from birds to humans but a mutation could lead to easy transmission between people. Previous influenza pandemics have been disastrous. For instance, the 1918 Spanish flu pandemic is thought to have killed at least 50 million people around the world. An outbreak of that scale would lead to up to 70,000 deaths in Australia. Even a smaller outbreak could have huge impacts on the economy. For instance, the 2003 outbreak of SARS (which probably came from bats) in Asia led to around 1,000 deaths out of around 8,000 cases. It spread extraordinarily quickly and it led to widespread panic. Air traffic in the Asia-Pacific region reduced by 45 per cent and the outbreak is estimated to have cost the regional economies around US$40 billion.[6]

Bioterrorism

2.8 Plant and animal diseases can also be deliberately transmitted as a criminal or terrorist acts, however, confirmed cases of this happening are extremely rare. The best known cases are the distribution of anthrax in letters in the United States of America in 2001 and the planned bioterrorist attacks by the Japanese Aum Shinrikyo cult in the 1990s.[7]

2.9 However, Australian emergency services have worked to plan a response to such a possibility, most recently with Operation Rawhide in March 2006. This exercise tested the response to the deliberate release of the Foot and Mouth Virus in Queensland. Participants needed to consider the evidence requirements of counter-terrorism authorities as well as animal health issues.[8] The Department of Primary Industries has

[5] Dr Jeremy McAnulty, Transcript of Evidence, 9 August 2006, p9.
[6] Dr Alan Dupont "Public Health and International Security" Task Force Report on Public Health and International Security prepared for the Future Summit 2006, the Australian Davos Connection, Brisbane, 11 May 2006, pp3-4
[7] *ibid.,* p5
[8] Mr Doug Hocking, Transcript of Evidence, 8 August 2006, p15

assured the Committee that this was a valuable exercise, the outcomes of which will be incorporated into the pest and disease preparedness activities.[9]

WHY GOVERNMENTS INTERVENE

2.10 Although most of the economic benefits of agricultural production accrue to the private sector primary producers, there is a role for government intervention in managing animal and plant pests and diseases where risks of disease spreading are great and where diseases could affect human health. The agricultural industry is primarily responsible for ensuring that preventative strategies are in place but government agencies intervene where outbreaks are beyond the capacity of individual producers to treat. Governments coordinate response activities, provide technical services, certify products for trading partners and address disease outbreaks that may affect human health or biodiversity.[10]

2.11 Historically, the New South Wales Government has intervened in disease and pest control since early settlement when certain sheep diseases and pests, such as rabbits, were beyond the ability of individual farmers to control. These required coordinated control campaigns. In economic terms these are instances of "market failure" where a freely operating market cannot produce socially desirable outcomes because of a lack of investment or information about the best way to proceed.

2.12 One form of market failure is "spill-overs", where inaction by one group can undermine disease control activities by others, such as when diseases cross property boundaries. Government has a role in coordinating these control activities to increase their efficiency. Another market failure is information deficiency, where individuals do not have the technical knowledge of the best way to respond to diseases. Government agencies can provide producers with information developed through consultation with industry and academic experts. The most important role for government is probably in the provision of public goods, where a benefit cannot be provided to one group without providing it to everyone. An example of this type of market failure is surveillance of disease and pest prevalence.[11]

2.13 Government pest and disease control services provide export customers with assurance that disease control services in Australia are high quality. Export markets are preserved because Australia's government systems can identify and address exotic diseases quickly. These government services also provide assurance of the safety for trade within Australia.[12]

2.14 In recent years, agricultural industries have provided an increasing proportion of the funding for biosecurity services, either through levies for disease control programs or rates to Rural Lands Protection Boards.

[9] Department of Primary Industries (DPI), Answers to Questions on Notice, 25 October 2006, p7
[10] Mr Doug Hocking, Transcript of Evidence, 8 August 2006, p2
[11] NSW Government Review Group, *Statutory Review of Rural Lands Protection Act 1998*, November 2004 pp24-25
[12] Whole of Government, Submission No.14, p21

ADMINISTRATIVE ARRANGEMENTS

2.15 The New South Wales Government works with other jurisdictions, the Commonwealth Government and industry to manage plant and animal diseases in order to maintain Australia's disease-free status in interstate and international trading relationships.

Key Agencies in New South Wales

2.16 The key state agency for managing animal and plant health is the Department of Primary Industries. It was formed on1 July 2004 from an amalgamation of the former Department of Agriculture, NSW Fisheries, Department of Mineral Resources and State Forests of NSW.[13] It manages pest and disease issues affecting primary industries including maintaining surveillance and diagnostic capacity for plant and animal pests and diseases.

2.17 Rural Lands Protection Boards are responsible for delivering many animal health programs in relation to those animals defined as stock in the *Rural Lands Protection Act 1998*. This is in accordance with animal health plans developed under a Memorandum of Understanding between the Department of Primary Industries and the State Council of Rural Lands Protection Boards. The staff of Boards also have roles as inspectors for endemic and exotic diseases and in responding to outbreaks of emergency animal diseases response under the State Emergency Planning processes. Boards also deliver weed and pest insect control programs.

2.18 The NSW Department of Environment and Conservation has responsibility for managing disease outbreaks in native animals. It manages pest animals, pest plant and emergency disease outbreaks in and around national parks.

2.19 The Office of Financial Management of NSW Treasury is responsible for managing the allocation of financial resources to deal with animal and plant disease programs, both through the State Budget and by providing supplementary funding where required.[14] In an emergency response, other agencies may also be involved. For instance, NSW Health manages public health issues and health warnings arising from animal disease emergencies. Police, Fire Brigades, State Emergency Service and NSW Transport and the Royal Society for the Prevention of Cruelty to Animals all have defined responsibilities under the State Animal Health Emergency Plan.[15]

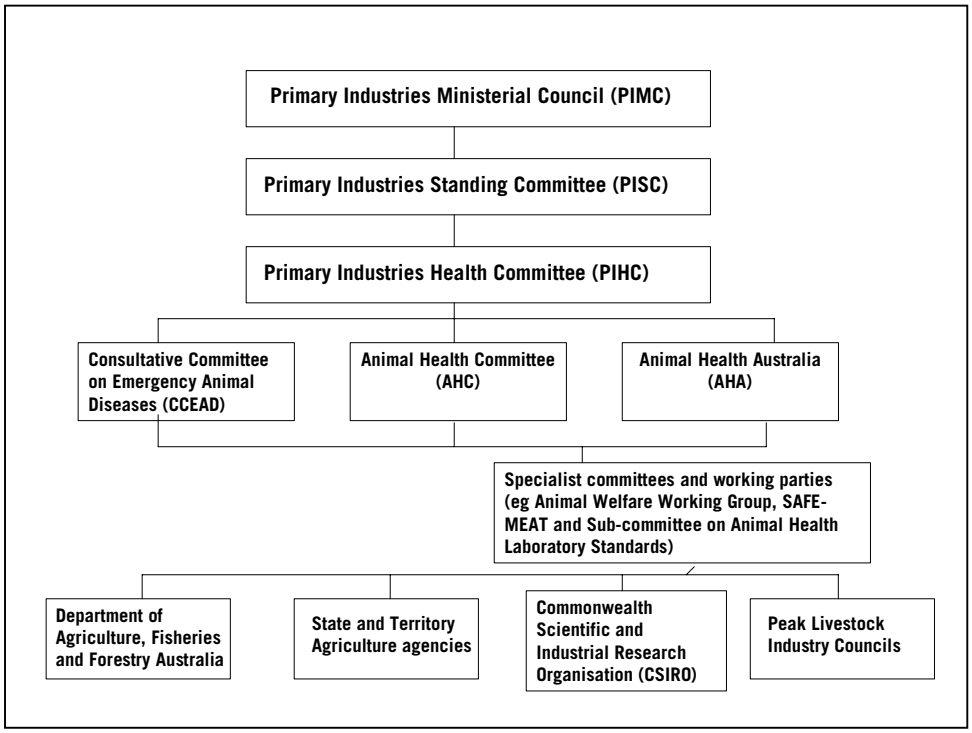
National and International Agencies

2.20 The NSW Minister for Primary Industries participates in the Primary Industries Ministerial Council (PIMC) which makes policy at national level. Officers of the Department Primary Industries are represented on the numerous supporting committees reporting to the Ministerial Council, including the Primary Industries Standing Committee and the Primary Industries Health Committee. These policy-making committees work with industry bodies and technical experts to develop pest and animal disease policies. For instance, the Animal Health Committee contains representatives from government and industry bodies to develop national animal

[13] Department of Primary Industries, *Annual Report 2004-05*, p3
[14] Whole of Government, Submission No.14, p3
[15] NSW Animal Health Emergency Plan – a Subplan to the State Disaster Plan (DISPLAN) 2001, pp18-21

health programs.[16] Figure 2.1 illustrates how the state, national and industry bodies cooperate in developing policy for animal health.

Figure 2.1: Structure of Australian government and Industry Agricultural Policy Development Bodies



Source: Whole of Government, Submission No.14, p.26

2.21 The Commonwealth Department of Agriculture, Fisheries and Forestry (DAFFA) deals with national border control issues. Part of DAFFA is the Australian Quarantine and Inspection Service (AQIS) which is responsible for certifying export quality of agricultural products and screening of imported agricultural products. Export certification is managed through seven programs. Certification in the area of dairy products is provided by State Regulatory Authorities and Organics is by private sector contractors.[17] AQIS is also responsible for monitoring international borders to reduce the risk of imported material containing animal or plant diseases and pests. DAFFA manages the policy development for risk assessments for particular imported agricultural products in consultation with State and Territory governments and industry.

2.22 Animal Health Australia and Plant Health Australia are companies jointly funded by government and industry. They provide expertise and training services and manage the development of the respective national emergency response plans for the animal disease and plant pest emergencies, AUSVETPLAN and PLANTPLAN.

2.23 Animal Health Australia has developed national animal health performance standards against which government and industry partners can assess their performance. These include the full range of animal health and welfare issues including managing both emergency diseases and endemic diseases.

[16] Transcript of Evidence, 8 August 2006, p8
[17] *ibid.,* pp49-50

2.24 In recent years, State and Commonwealth governments have also provided funding for economically important research by Cooperative Research Centres (CRCs). Two of these have been established: the Australian Biosecurity CRC for Emerging Infectious Diseases and the CRC for National Plant Biosecurity which have comprehensive seven-year research programs in these areas.

2.25 There is a range of international standards for animal and plant health. Under an international agreement, countries are able to establish their own animal and plant health safety requirements so long as these are based on science. International standards are developed for animal health by the Office International des Epizooties (OIE) and for plant health by the International Plant Protection Convention. The Codex Alimentarius develops standards for food safety and prescribes the safe level of chemical residue in food.[18]

Key NSW Legislation

2.26 There are two types of legislation: the agricultural plant and animal disease legislation and the emergency planning legislation to deal specifically with emergencies.

2.27 The Department of Primary Industries has carriage of the animal and plant legislation including:

- *Agricultural Livestock (Disease Control Funding) Act 1998 No 139*
- *Exotic Diseases of Animals Act 1991 No 73*
- *Fisheries Management Act 1994*
- *Noxious Weeds Act 1993*
- *Plant Diseases Act 1924 No 38*
- *Rural Lands Protection Act 1998 No 143*
- *Stock Diseases Act 1923 No 34*
- *Stock Foods Act 1940*
- *Stock Medicines Act 1989 No 182*
- *Swine Compensation Act 1928 No 36*

2.28 Under the *State Emergency and Rescue Management Act 1989*, the State Emergency Management Committee manages the State's Emergency plan called DISPLAN which has subplans relating to animal disease emergencies and to human influenza pandemics.

National Arrangements for Animal and Plant Health Emergencies

2.29 State, Territory and the Commonwealth Governments and industry have established comprehensive agreements for managing animal and plant health emergencies. Animal health is addressed through AUSVETPLAN, the National Emergency Veterinary Plan while PLANTPLAN is the Australian Emergency Plant Pest Response Plan. AQAUVETPLAN deals with the health of aquatic animals such as fish and oysters.

[18] National Audit Office, 2006, *Australian Quarantine and Inspection Service*, Canberra, p107

2.30 The state emergency response procedures are meant to be consistent with these national plans. For instance, New South Wales has adopted parts 1 and 2 of AUSVETPLAN's control centre management manual as the basis of its state planning.[19]

2.31 The emergency disease and pest agreements overlap with other emergency planning in the areas of human health and natural disasters. Such efforts require coordinated responses across the whole-of-government. When the emergency protocols are activated, many agencies are involved in the response and cost sharing protocols commence under intergovernmental deeds.

2.32 These plans are comprehensive and designed to lead to a consistent response to an outbreak, or suspected outbreak, of an emergency anywhere in Australia. AUSVETPLAN provides a framework that sets out the respective roles, responsibilities and procedures that will be followed by all agencies in the three phases of an emergency animal disease response: incident identification, response and proof of freedom. These procedures are contained in a series of 50 manuals that deal with 29 diseases, nine specific types of enterprise and various operational procedures, including valuation and compensation.

2.33 There are also agreements about funding arrangements once an emergency response has been initiated with different levels of funding responsibility for the Commonwealth and State governments and industry depending on the nature of the outbreak. This will be discussed in detail in Chapter Seven.

Emergency Planning Exercises

2.34 New South Wales agencies regularly participate in exercises to test their level of preparedness and the robustness of the emergency planning arrangements for emergency animal disease outbreaks. In 2002, there was a national simulation of the release of Foot and Mouth Disease in the eastern states, called Exercise Minotaur. Prior to the national exercise, the State Emergency Management Committee tested the State's own preparedness in Exercise Mithra.[20] Minotaur was the largest ever exercise of its type in Australia and tested such issues as the effectiveness of planning, administrative arrangements, logistics, communication and disease control strategies.[21]

2.35 In March 2006, New South Wales participated in Exercise Rawhide which tested the response to the deliberate release of Foot and Mouth Disease as a weapon.[22]

AVIAN INFLUENZA

2.36 A large part of emergency planning in Australia and around the world in recent times has addressed the possibility of an avian influenza pandemic. The Commonwealth has established a National Influenza Pandemic Action Committee (NIPAC) within the Health portfolio. This expert Committee's role is to advise on:

[19] Whole of Government, Submission No.14, p9
[20] Minister for the Environment, Submission No.2, p3
[21] DAFFA, *National Foot and Mouth Disease Simulation: Exercise Minotaur – Evaluation Report,* pp1-2
[22] Transcript of Evidence, 8 August 2006, p15

- Appropriate vaccines and influenza antiviral drugs;
- Surveillance in human and animal populations;
- Health and emergency services preparedness planning;
- Strategies for slowing influenza transmission in a pandemic;
- Research priorities; and
- Communications.[23]

2.37 This Committee works with the State and Territory governments to develop national and local plans for pandemic preparedness and response in the event of an emergency. The Australian Health Management Plan for Pandemic Influenza was updated in May 2006 and the New South Wales Government released its own local Human Influenza Pandemic Plan in August 2006.[24]

Emergency planning for zoonotic diseases

2.38 In addition to existing emergency animal disease planning systems at state and federal levels, the Australian Health Disaster Management Policy Committee was established in 2003 to provide an improved response on health issues. It is the national coordinating body in the event of a national health emergency.[25]

Avian Influenza Exercises

2.39 These plans and the level of preparedness have been tested in large scale exercises. In late 2005, Exercise Eleusis simulated an outbreak of highly pathogenic avian influenza across three states. In the simulation, the disease also infected humans. This simulation led to a national report on the effectiveness of the current level of planning and preparedness.[26]

2.40 The Committee notes that, after it established this inquiry, the Commonwealth Government announced a new test of the national disaster planning arrangements for a human influenza pandemic called Exercise Cumpston. This exercise took place from 16 to 19 October 2006 in Queensland, although all Australian jurisdictions participated in the exercise and its preparatory planning. It tested the response to an arrival at an international airport of suspected avian influenza cases, including border control, quarantine and hospital plans. In due course, DAFFA will publish a complete evaluation of the exercise.[27]

2.41 New South Wales's capacity to treat cases of travellers arriving from overseas with possible symptoms of avian influenza has been tested recently. Reports indicate that, on 10 October 2006, doctors were able to isolate a patient until the completion of testing to rule out the disease. Importantly, these tests were completed in just a few

[23] Biosecurity Health Response - National Influenza Pandemic Advisory Committee (NIPAC) Fact Sheet, available at http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pubhlth-strateg-bio-factsht_nipac.htm (accessed 19 October 2006)
[24] DAFFA, *National Pandemic Influenza Exercise: Project Plan* 1 June 2006, New South Wales Government, *Human Influenza Pandemic Plan*, August 2006
[25] DAFFA, *Exercise Eleusis: Evaluation Report – Key Findings*, p2
[26] DAFFA, *Exercise Eleusis: Evaluation Report - Analytical Background*, p5
[27] DAFFA, *National Pandemic Influenza Exercise: Project Plan*, p5, p7

hours.[28] This illustrates the capacity of the State's health system to respond quickly in the event that infected passengers do arrive from overseas by air.

NON-EMERGENCY DISEASES

2.42 Diseases which are not emergencies have treatment programs to reduce their spread. These can be either "endemic" (or locally prevalent) or "exotic" (not normally found in Australia). Examples of pest and disease control programs include treatments for cattle tick and cattle tick fever, footrot, enzootic bovine leucosis (EBL) and porcine myocarditis.[29]

2.43 These programs are vital for ensuring that diseases do not spread and become major outbreaks. As mentioned in 2.17, the 47 Rural Lands Protection Boards (RLPB) deliver state-wide or national animal health programs for animals defined as stock under the RLPB Act, as well as weed and insect control programs. In addition, Boards can deliver local animal health control programs developed in consultation with local landholders. Board activities are funded primarily by landholder rates.

2.44 Other disease control programs are delivered by the Department of Primary Industries and some funds can be provided by national agencies.

[28] "Front Line Defences at Work against Bird Flu", *The Sydney Morning Herald*, 2 November 2006, p15
[29] Whole of Government, Submission No.14, pp22-24

Chapter Two

Chapter Three - Managing Animal Disease Emergencies

3.1 This Chapter briefly summarises the findings of the Auditor-General's 2002 Performance Audit Report, *Managing Animal Disease Emergencies,* and the Government's response contained in the Whole of Government submission to this inquiry. Key issues raised in submissions or requiring further consideration are discussed in subsequent chapters.

3.2 The Committee notes that there has been significant administrative and policy change since 2002, most obviously, the replacement of the NSW Agriculture with the Department of Primary Industries. Other efforts include an escalation in the degree to which whole-of-government planning for emergencies has developed. For this reason, some of the recommendations, particularly relating to state based planning have been overtaken by events. Indeed the Performance Audit Report notes that "many of the recommendations relate to the finalisation and implementation of developments already under-way."[1]

THE AUDIT

3.3 The Performance Audit examined the effectiveness and efficiency of the way the then NSW Agriculture managed emergency animal disease emergencies by reviewing the regulatory activities of the Department as they related to:

- Planning and response strategies;
- Co-ordination of the Department's activities; and
- Level of support provided by monitoring, surveillance and diagnostic activities.[2]

3.4 In 1999, there was a major outbreak of virulent Newcastle disease in poultry at Mangrove Mountain, in the Gosford area. The response to this outbreak showed that there were problems with the emergency animal disease arrangements including the activation of emergency funding arrangements and disposal of large numbers of animal carcasses. [3]

3.5 The Performance Audit found that, while the Department had taken significant steps to improve the management of emergency animal diseases, there were still significant issues that needed addressing. The Report considered that, if there was an outbreak of Foot and Mouth Disease in New South Wales comparable to the 2001 outbreak in the United Kingdom, it was "not evident that it could be efficiently and effectively controlled and eradicated."[4]

3.6 The Report made 12 recommendations about improving the way New South Wales managed emergency animal diseases. The Whole of Government submission to this inquiry provided a response to each of the recommendations that is summarised in the

[1] Audit Office of New South Wales, 2002, *Managing Animal Disease Emergencies*, p7
[2] *ibid.,* p59
[3] *ibid.,* p3
[4] *ibid.,* p3

following table. The table also indicates whether the Report addresses each issue in greater detail.

RECOMMENDATIONS AND SUBSEQUENT ACTIONS

Table 3.1 – Government Response to Audit Report Recommendations

No.	Audit Report Recommendation	Summary of Whole of Government Response	Discussed further?
1	NSW Agriculture should apply a more comprehensive approach based on risk analysis principles to the management of emergency animal diseases. It is essential for the improved linkage and alignment of strategies, plans and resources.	Routinely adopted for pre-incident preparedness and incident responses. Useful for assessing both operational and financial impacts when evaluating the probability and impact of disease outbreaks.	Yes - Chapter 4
2	The surveillance strategy for emergency animal diseases should be revised to ensure that adequate investigation and sampling is occurring across the State. NSW Agriculture should continue to actively support initiatives to recruit and develop more veterinarians for livestock work in rural NSW. Without adequate numbers of livestock veterinarians, surveillance is restricted.	Does not address directly but states that $0.4 million was allocated to surveillance projects in 2005-06. Adequacy of surveillance programs are regularly inspected by trading partners. DPI recognises issue of ageing workforce and offers work experience to veterinary students. Also promotes Accreditation Program for Australian Veterinary Practitioners (APAV).	Yes - Chapter 5
3	NSW Agriculture should ensure that the Chief Veterinary Officer's national and statutory responsibilities are not jeopardised by the position's day-to-day Project Manager role. To limit the potential slowing down of an emergency response, the CVO should have authority to relate directly to executive management to resolve issues that may impede a speedy initial response to an emergency outbreak.	During actual and simulated emergency, Chief Veterinary Officer's management responsibilities are delegated. This worked well when tested during Exercise Minotaur and Exercise Eleusis.	Yes – Chapter 4
4	NSW Agriculture should explore the option of an initial response fund to support the immediate response action when an emergency animal disease is reasonably suspected. This would support professional clinical judgement made in the field and would limit any impact on the Department's budget. It would help overcome any delay caused by fears of national funding not being available under the cost sharing Deed.	Not implemented but the Department has a contingency fund to respond and may seek supplementary funding once this is exhausted. Source of this funding includes the cost sharing deeds with Animal Health Australia and Plant Health Australia and the Commonwealth and State cost sharing arrangements. Treasury and DPI are working on forecasting and financial contingency planning.	Yes - Chapter 7

No.	Audit Report Recommendation	Summary of Whole of Government Response	Discussed further?
5	NSW Agriculture should consider developing benchmarks to better manage initial actions. Most importantly they should address the timing of identification and response actions. They should in particular also outline the level of co-operation require of government and industry in the incident identification stage. The benchmarks would have State and national application.	Response benchmarks have been developed and validated for tactical responses in NSW and work will continue on benchmarks at the strategic level. NSW is facilitating the establishment of a national committee to develop and adopt procedures which will also include benchmarks.	Yes – Chapter 4
6	NSW Agriculture must continue to support the development of national livestock identification schemes. The ability to trace cattle and sheep is critical to a speedy response.	NSW had adopted the National Livestock Identification Scheme for cattle and sheep.	Yes - Chapter 6
7	The development of solutions for the disposal of large numbers of animals is a key indicator of NSW Agriculture's capacity to deal effectively with large-scale emergency animal [disease] outbreaks. Solutions should include the integration of NSW Agriculture's specialist emergency animal disease procedures and structures with those of the broader based State emergency services and the identification of possible disposal sites.	Disease outbreaks highlighted the potential risks to human health of carcasses. NSW has been working with other states and emergency planning arrangements to improve planning. It has identified up to 82 sites for mass burial of carcasses and is examining other disposal methods. A new AUSVETPLAN manual has been drafted on the issue.	Yes - Chapter 5
8	NSW Agriculture should ensure that emergency animal diseases management information systems are improved. They must support more accurate and complete collection, collation, analysis and reporting. This includes the further development of digital mapping capabilities.	National systems called the BIOSIRT package are being developed to support data collection, analysis and reporting of animal disease outbreaks. Estimates that existing systems (ANEMIS) and Resource Management Package will be replaced in 2007 and 2008 respectively.	Yes - Chapter 5
9	The gap in the inspection of the use of food from restaurants in the swill feeding of pigs should be filled by regulation.	Addressed by introduction of clause 60 of the Stock Diseases Regulation 2004 which prescribes certain prohibited substances for pig feeding.	Yes - Chapter 5
10	Memoranda of Understanding should be negotiated between NSW and neighbouring States. They would complement national plans and provide for greater understanding and integration of activities in cases of cross-border outbreaks.	Memoranda have been developed but not signed between NSW and ACT and Queensland. Are working on Vic and SA. Have tested cross border issues in simulated emergencies such as Exercise Rawhide.	Yes - Chapter 4

No.	Audit Report Recommendation	Summary of Whole of Government Response	Discussed further?
11	The Exotic Animal Diseases Control Manual should be revised. Contents should reflect the changing circumstances reflected in this report and developments in the national emergency response plan. Presentation should be made more consistent and user friendly.	Parts 1 and 2 of the AUSVETPLAN Control Centre Management Manual have been adopted in NSW as the key response manual for animal pest and disease emergencies in NSW. This is used nationally.	No
12	Standard operating procedures should be further developed for the State emergency animal disease headquarters managed by NSW Agriculture. They should include the higher-level co-ordination of liaison activities with the media and communities, the use of private veterinarians and veterinarians from interstate or overseas, and the analysis of emergency costs relative to benefits.	Members of the NSW First Response Team of the State Disease Control Headquarters continue to develop the procedures that are specific to their scope of operations. Exercise Eleusis recently provided an opportunity to test and review the procedures in place and identify further procedures that need development.	Yes - Chapter 4

Source: Audit Office *Managing Animal Disease Emergencies*, pp. 7-8, Whole of Government, Submission No.14, pp.4-10

Chapter Four - Risk-based Planning, Preparedness and Immediate Response Mechanisms

4.1 The success of emergency responses depends on the quality of planning and the availability of qualified people prepared to respond promptly once an incident has been identified.

4.2 This Chapter addresses the effectiveness of planning and the immediate response mechanisms. It examines the extent to which the Government uses risk-based analysis to develop and review plans and it identifies some gaps remaining in the planning processes. It then comments on the effectiveness of immediate response actions where possible.

PLANNING PROCESS

4.3 Planning based on sound technical advice and supported by wide-ranging consultation with stakeholders leads to better public policy. The former Auditor-General, Mr Bob Sendt, emphasised to the Committee the importance, for all types of responses, of ensuring that proper plans are in place and that government and industry parties clearly understand their roles and responsibilities:

> **Mr SENDT:** I think generally in both areas it needs to be an arrangement that both understand in advance; that arrangements are put in place that both government and industry, in this case primary industry, are happy with; and that they understand the government's arrangements surrounding any response, whether it is a response of an emergency nature or a response to an endemic problem. There needs to be acceptance by both parties of what their respective roles are, and an understanding of issues such as cost sharing, where there is cost sharing to be borne by both parties. Certainly I think the fundamental issue is that there is a shared understanding in advance of who is responsible for what.[1]

Importance of Risk-based Planning

4.4 The Performance Audit recommended that NSW Agriculture adopt a more comprehensive approach to its preparations for managing emergency animal diseases based on risk analysis principles.[2] In particular, it was concerned that the absence of risk-based planning would limit the ability of all participants to understand the full scope of preparedness and contingency planning.

4.5 Risk management means:

> the culture, processes and structure that are directed towards realising potential opportunities whilst managing adverse effects.[3]

4.6 The key components of the risk management process are:

- Communicate and consult;
- Establish the context;

[1] Transcript of Evidence, 8 August 2006, p28
[2] Audit Office of New South Wales, 2002, *Managing Animal Disease Emergencies*, p7
[3] Standards Australia, *AS/NZS 4360:2004 Risk Management*, p4

- Identify risks;
- Analyse risks;
- Evaluate risks;
- Treat risks; and
- Monitor and review.[4]

4.7 The Performance Audit acknowledged that, in relation to animal diseases, the national programs recently (at that stage) initiated by Animal Health Australia would go some way to filling the gap in risk-based planning.[5] These programs included the Emergency Animal Disease program designed to develop national animal health performance standards for preparedness to respond to animal and plant disease emergencies. Other initiatives included revising and updating the AUSVETPLAN.

4.8 The Department of Primary Industries now claims to be using risk analysis in managing biosecurity. In evidence, Mr Doug Hocking, the Executive Director Biosecurity, Compliance and Mine Safety, explained the Department's philosophy:

> The New South Wales approach to biosecurity is based on risk analysis and surveillance—we cannot do everything so we have to take a risk-based approach both in our disease management as well as surveillance—which is supported where possible with appropriate identification, tracing and data management systems. This enhances the capability of New South Wales agencies to identify and respond to threats immediately.[6]

4.9 The Whole of Government submission to this inquiry states that:

> Risk-based planning is now routinely adopted during the development of pre-incident preparedness and also incident responses. It is acknowledged that planning based in risk analysis encourages a more conscious and proactive decision making process. Because the need, nature, magnitude and timing of pest and disease response services are unpredictable and fluctuate, they represent a financial risk. By adopting a risk analysis approach, both operational and financial planning factors can be considered when evaluating the probability and impact of disease outbreaks and corresponding prevention and control measures.[7]

EXAMPLES OF RISK-BASED PLANNING

Surveillance Operational Plan

4.10 A key example of internal planning based on risk management principles is the Department of Primary Industries' *Animal Health Surveillance Operational Plan*. It is developed in accordance with an assessment of key risks to animal health at national, state and regional levels and updated annually after a review of the progress of current and completed projects. The process is:

> The Quality Assurance Program reviews its two-year rolling Plan in September each year. The Division of Animal Industries Board of Management considers, revises and endorses a final plan for consideration by the Director General by 30 October each year. The

[4] *ibid.,* pp7-8
[5] Audit Office of New South Wales, 2002, *op cit.*, p26
[6] Mr Doug Hocking, Transcript of Evidence, 8 August 2006, p2
[7] Whole of Government, Submission No.14, p4

Director-General maintains surveillance funds in a contingency account for release to the Program Manager, Quality Assurance upon acceptance of the Plan.

Each year, the surveillance review process is supplemented by a surveillance workshop where all stakeholders are invited to present results of surveillance projects and to identify emerging risks. This is held in conjunction with the District Veterinarian's Conference in September.[8]

4.11 The plan identifies the key risks, adopts priorities and applies treatments to address these. The following table shows how the 2004-05 to 2005-06 plan (the most recent plan made available to the Committee) addresses these priority risks and how much each project cost in 2005-06 (not all projects are ongoing). Not all of these projects are solely funded from the State's budget. In some cases, projects were not able to be commenced in the current year. Higher cost projects tend to have large sums attributed to laboratory costs. The plan clearly identifies those projects which are of lower priority.

Table 4.1 – Animal Health Surveillance Projects 2004-5 to 2005-06

Priority Outcome	Key Performance Measures	Delivery strategies (Annual Project Cost)
1. Managing the risk of surveillance system failure		
1.1 Identification of passive surveillance benchmarks – the setting of achievable levels of disease investigation by District Veterinarians on a district basis	District Veterinarian collaboration in setting surveillance benchmarks.	Project 1.1.2003 "Improvement of field disease diagnosis" ($150,000)
1.2 Implementation of DMS (Disease Management System) - a system of measuring improvement of 1.1.	A 10% annual increase in investigations recorded on DMS	"Project 1.2. 2002 "Implementation of DMS ($30,000 from Budget, $10,000 from other sources)
	Acceptable report against the national performance standards measures	Internal audit by Chief Veterinary Officer ($1,000)
1.3 Benchmarking against other state and private systems	A comparative report on NSW Ag's surveillance system	Project 1.3.2003 "Benchmarking NSW's surveillance system against other providers' systems" ($1,000)
1.4 Improving the reporting of suspect notifiable diseases by producers	95% of producers are aware of their reporting obligations and the role of the DV in that process	Project 1.4.2002 "The notifiable diseases surveillance and awareness project" ($30,000)
1.5 The implementation of poultry, pig and equine health industry-government liaison meetings	No instances of failure to report a notifiable disease in intensive industries are detected	Project 1.5.2003 "Capturing surveillance data in intensive industries" ($5,000)

[8] DPI, *Animal Health Surveillance Operational Plan 2004/5 – 2005/6*, p3

Priority Outcome	Key Performance Measures	Delivery strategies (Annual Project Cost)
1.6 Assurance that cases are finalised	No instances of an emerging disease are missed because of failure to apply diagnostic resources	Project 1.6.2002 "The emerging diseases project" ($12,000)
1.7 Regional Veterinary Laboratories Training	A prescribed number of mortality investigations provide adequate training of Regional Veterinary Laboratory staff	Project 1.7.2003 "The Mortality Investigations Project" ($170,000)
Priority Outcome	**Key Performance Measures**	**Delivery strategies**
2. Managing the risk of failing to detect an exotic or newly emergent disease or disease agent		
2.1 Completion of the Pig Mortalities survey	Completion of a survey for Pig Mortalities in pigs	Project 2.1.2002 "A survey for Pig Mortalities in pigs in NSW" ($38,200)
2.2 Identification of pig smallholders in the Sydney basin		Project 2.2.2002 "Pig surveillance in Western Sydney" ($28,500)
2.3 Assurance that anthrax cases do not go unnoticed/unreported by producers	A report on the accuracy of the so-called anthrax belt as an accurate representation of the distribution of anthrax.	Project 2.3.2003 "An assessment of the efficacy of laboratory diagnosis as an indicator of the prevalence of anthrax" ($20,000 – no funds available to commence in 2005-06)
2.4 Diagnosis of all suspect exotic disease	Sample submission rates match historical records	Project 2.4.2002 "Enhancement of exotic/ emergency disease diagnosis" $30,0000
2.5 Characterisation of strains and prevalence of Newcastle Disease	Testing to confirm that endemic strains of ND are non-virulent	Project 2.5.2003 "NDV Characterisation" ($20,000)
3. Managing the risk of inadequate reporting		
3.1 All stakeholders are aware of disease issues and status in NSW	A high quality web and hard copy quarterly surveillance report read by all stakeholders	Project 3.1.2003 "Reporting for animal health in NSW" ($7,000 from NAHIS)
4. Managing the risk of lack of information for possible or actual disease management programs		
4.1 Improvement in flock fertility in the north west of NSW	Publication of the role *Brucella ovis* plays in reduced lambing percentages	Project 4.1.2002 "*Brucella ovis* survey around Narrabri and Moree" ($4,300)

Priority Outcome	Key Performance Measures	Delivery strategies (Annual Project Cost)
4.2 An understanding of the geographical distribution of *Neospora* infection in abortions in dairy cattle	Publication of the epidemiology of Neospora in cattle	Project 4.2.2002 "The *Neospora* survey" ($36,000)
4.3 A clearer understanding of the prevalence of production limiting pig diseases in NSW	Publication of the results of a Pig Health Monitoring survey	Project 4.3.2002 "Introduction of PHMS into NSW abattoirs" ($10,000)
4.4 A basis for introduction of zones for JD in goats	Publication of the results of a goat JD survey	Project 4.4.2003 "The prevalence and distribution of *M paratb* in goats in NSW" ($12,000)
4.5 A basis for introduction of zones for JD in cattle	Rational zoning systems for JD in NSW beef cattle	Project 4.5.2003 "The prevalence and distribution of JD in cattle" ($50,000)
4.6 An understanding of the likelihood of nematode and tick resistance to Cydectin in cattle	Better approaches to tick control in dairy cattle	Project 4.6.2003 "Cydectin resistance in cattle" ($10,000 but question mark over project)
5. Managing the risk from trade limiting zoonoses		
5.1 Assurance that there are no zoonotic diseases whose prevalence and distribution are unknown	Publication of a review of endemic zoonotic disease and the hazards they pose for trade	Project 5.1.2003 "A review of surveillance implications for zoonotic diseases" ($2,000)
6. Managing the risk of sub-optimal national programs impacting on trade		
6.1 Acceptable national reporting	Achievement of National Animal Health Information System (NAHIS) reporting timelines	Project 6.1.2002 " The NAHIS Project"
6.2 Participation in the transmissible spongiform encephalopathy program	Sampling targets are achieved	Project 6.2.2002 "The NTSESP Project" (National Transmissible Spongiform Encephalopathy Program) ($15,000)
6.3 Detection of tuberculosis of cattle in abattoirs	All TB granulomas are identified	Project 6.3.2002 "The NGSP Project" (National Granulomas Submission Program) ($90,000)

Priority Outcome	Key Performance Measures	Delivery strategies (Annual Project Cost)
6.4 Bluetongue free regions are defined	Trading partners accept stock from genuinely bluetongue-free regions	Project 6.4.2002 "The NAMP project" (National Arbovirus Management Program) ($20,000)

Source: Adapted from *DPI Animal Health Surveillance in NSW Operational Plan 2004/5-2005/6*, pp.7-13

4.12 This Plan shows that, in the area of animal health surveillance, the Department is applying risk management principles to the development of prioritised project plans. The plans are monitored and updated in accordance with the principles in order to identify remaining gaps in knowledge about disease prevalence.

Emergency Plans and Structures

4.13 As mentioned in Chapter Two, key emergency response plans have been developed at national level for responding to animal, aquatic and plant pest and emergency disease outbreaks. The New South Wales Government has aligned emergency animal and plant disease planning with other emergency planning processes. These plans have been developed on a risk management basis.

4.14 The State's planning process includes defined roles for a first response team, the Emergency Pest and Disease Response Team, that can be deployed for a wide range of emergency responses. The plans address the risks of people not being available by including back-up. Its role was described by Mr Graeme Eggleston, Director Emergencies and Strategic Response from the Department of Primary Industries:

> **Mr EGGLESTON:** We call it the first response team and nationally under the AUSVETPLAN for what we call the State disease control headquarters and local disease control centres there are set positions, which have statement of duties attached to them. We have built each of those positions within our own network with at least two to three people, so we have back-ups. Our first response team consists of 185 people. That first response team is probably the envy of the other States because some of them do not even have the resources to fill one team so if we got called into a situation where we had to have more than one local disease control centre, we could do that.
>
> The training for that is ongoing all the time. We see it as very important to ensure that they are all ready to go when ever. We utilise members of the first response team not only for animal health emergencies but it is the same people we use in bushfires, plague locusts, that type of thing. It does not matter what the structure is, the structure is the same, regardless of whether it is an ordinary emergency such as locusts or floods or an animal health emergency. The reason for doing it that way is more practice. We use the network that is within the State through the State Emergency Management Committee so that we just about live in each other's pockets all the time. We are the envy of other States in that regard because no other State has a structure like that where we use the functional areas under the State disaster plan for all animal type emergencies and plant type emergencies.[9]

[9] Transcript of Evidence, 8 August 2006, p4

4.15 Mr Eggleston went on to describe the effectiveness of this structure in practice in dealing with emergencies:

> ....The chief veterinary officer is on top of the team, then there is a director of the State disease control headquarters. We have three people in that position so that they can rotate because you can guarantee Murphy's Law will apply and one or two will be away at any given time, especially at four o'clock on a Friday afternoon when some of these always seem to happen. We have three local controllers who are in charge of the local disease control centres. If you are fighting a big disease emergency you might have one State disease control headquarters and you might have two or three local disease control centres and the actual operational matters span out from that local disease control centre.
>
> We do have what we call forward control posts that span out from each local disease control centre where it is very, very close to the action and through the State Emergency Management Committee those forward control posts may, in many situations, be your local emergency operational centre that each of the councils has as part of their emergency management arrangements. They are designed, those in the field and in the office, to look after about 30 to 50 people and your local disease control centre might have more than that.[10]

4.16 This evidence shows that New South Wales has planned its emergency responses to take into account the risk of a large scale emergency spreading quickly by identifying people and resources for specific roles. It also has devoted considerable effort to training a team ready to cope with a wide variety of emergencies.

Animal Health Australia Risk Management and Performance Standards

4.17 In 2001, Animal Health Australia (AHA) developed the first version of animal health performance standards to provide a baseline of minimum performance for government and industry in their respective roles in the animal health system. The standards encourage national consistency without requiring a nationally uniform approach. During 2003, all government and most industry members of AHA conducted self assessments of their performance against the standards.

4.18 AHA has embraced risk management principles in its planning and threat assessments. In 2005, it developed a risk management user manual for the national animal health system to assist its members identify and assess threats.[11] Importantly, the 2006 Version of the Animal Health Performance Standards also incorporates the concept of risk assessment to enable government and industry to concentrate on issues of greatest importance.[12]

4.19 The standards are divided into six functions of the system consisting of:

- Consumer protection;
- Trade and market access;
- Disease surveillance;
- Endemic disease management;

[10] Transcript of Evidence, 8 August 2006, pp4-5
[11] Animal Health Australia, *Risk Management User Manual,* April 2005.
[12] Animal Health Australia, *National Animal Health Performance Standards Version 3*, p5

- Emergency preparedness and response; and
- Livestock welfare.[13]

4.20 Within each of these functions the standards identify nine critical capabilities in the areas of:

- Policy development;
- Management;
- Service capability/capacity;
- Information management;
- Livestock tracing;
- Training;
- Communication;
- Research and development; and
- Legislation and regulation.[14]

4.21 The standards include outcome measures for both government and industry members reflecting their respective roles. For instance in the area of endemic disease management, the standards require government members to "conduct appropriate risk assessments in developing disease control programs and priorities", whereas industry "contributes" to these processes.[15] The standards give industry bodies primary responsibility for functions to which they are more suited than government. For instance, industry is expected "to ensure that producers comply with national livestock identification schemes and vendor declarations" once government members have implemented the systems.[16]

4.22 Assessment against the standards is performed using a web-based risk assessment tool available to members of Animal Health Australia. This tool is consistent with the Australian standard for risk assessment. When completing the assessment, if members have a negligible or low risk against a particular outcome, they may consider themselves in compliance with the standards. However, higher risk levels would require defined actions to treat the risks.[17]

Conclusion

4.23 On the basis of evidence before it, the Committee believes that the New South Government has appropriate tools in place to assess, treat and respond to risks in managing animal pests and diseases. It trusts that similar strategies are in place to manage the risks of plant pests and diseases. The use of these tools should lead to more robust management plans.

[13] *ibid.*
[14] *ibid.*, p6
[15] Animal Health Australia, *National Animal Health Performance Standards Version 3*, p43
[16] *ibid.*, p47
[17] *ibid.*, p7

IMPORTANCE OF REVIEWING AND UPDATING PLANS

4.24 An essential component of risk management is ensuring that response plans are maintained. The Performance Audit Report found that while most emergency animal disease response plans and manuals were currently under review or had recently been reviewed, the *Exotic Animal Diseases Control Manual* had not been revised since 1996.[18]

4.25 The former Auditor-General explained how often plans should be updated:

> **Mr SENDT:** I think a high level review should be carried out fairly regularly, perhaps annually. But if there is something to suggest that some fundamental aspects of the disease have changed, or there have been significant changes in the industry or in the way the industry operates in terms of transport, handling, food production, et cetera, if there are those fundamental changes obviously a more frequent update would be necessary.[19]

4.26 Mr Chris Bowdler, Performance Audit Leader from the Audit Office pointed out that it was also important to review the way plans interact.[20]

4.27 The Whole of Government submission states that there was a comprehensive review of animal disease management following the 1999 outbreak of virulent Newcastle Disease in Mangrove Mountain and the outbreak of Foot and Mouth Disease in the United Kingdom in 2001.[21]

4.28 The Committee acknowledges that planning for emergency responses is complex and notes that the process of managing national plans such as PLANTPLAN and the AUSVETPLAN is practically never-ending. PLANTPLAN is reviewed annually.[22] For the more complicated AUSVETPLAN, it is only practicable to review parts of the plan each year. In 2005, for instance, four new manuals were finalised, a new manual on *Livestock Welfare in an EAD Response* was prepared and circulated for industry comment and six further manuals were developed through to the technical editing stage.[23]

4.29 Government and industry are working together and test their strategies regularly in exercises such as Exercise Eleusis on avian influenza and Exercise Minotaur on Foot and Mouth Disease. Comprehensive evaluations of these national exercises have been published which led to updating of response plans.[24] While no evaluation will be published of Exercise Rawhide conducted in March 2006, the Department of Primary Industries has assured the Committee that the outcomes of this exercise will be used to update pest and disease preparedness activities where appropriate. [25]

4.30 This shows that New South Wales is working with other agencies at a national level to update planning documents in response to changing circumstances.

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[18] Audit Office of New South Wales, 2002, *op cit*, p50
[19] Transcript of Evidence, 8 August 2006, p28
[20] *ibid.,* p28
[21] Whole of Government, Submission No.14, p15
[22] Plant Health Australia [http://www.planthealthaustralia.com.au/our_projects/display_project.asp?ID=189 &Category=2] accessed 1 November 2006
[23] Animal Health Australia, *Animal Health Status Report 2005*, p61
[24] Mr Doug Hocking, Transcript of Evidence, 8 August 2006, p2
[25] DPI, Answers to Questions on Notice, 25 October 2006, p12.

Updating Standard Operating Procedures

4.31 There are also many procedures supporting the main planning manuals. It can be quite onerous to ensure these are up to date. The Performance Audit observed that there were more than 200 Standard Operating Procedures (SOPs) to support Local Disease Control Centres. It noted that there should be additional and different SOPs for State Disease Control Headquarters.[26] In its submission to this inquiry, the New South Wales Government stated that members of the first response team for the State Disease Control Headquarters were continuing to work on appropriate SOPs and testing these in exercises.[27]

4.32 The submission from the Association of District Veterinarians expressed concern that, while there had been progress in updating the SOPs, the development of Veterinary Investigations SOPs was not adequate. The Association attributed this to a lack of input and guidance from the Department of Primary Industries. The submission stated that, "It is inappropriate to expect boards to allocate District Veterinarians' time to develop SOPs, when NSW DPI, as the lead agency, does not recognise it as a priority."[28]

4.33 The Committee considers that the complexity of the planning process requires constant management to maintain the currency of plans and supporting procedures. As the lead agency for emergency animal responses, the Department of Primary Industries should take a leadership role in the review process including encouraging all participants with defined roles in emergency response to develop and review SOPs.

RECOMMENDATION 1: That the Department of Primary Industries incorporates reviews of plans and operating procedures as a result of emergency incidents and exercises and ensures that there is adequate commitment from all participants in the review process.

GAPS IN PLANNING

4.34 The Committee heard that two gaps in the planning process identified by the Auditor-General still remained. These were:

- The development of Memoranda of Understanding with neighbouring jurisdictions on cross-border issues; and
- Maintaining public support for possible sites for the disposal of large numbers of carcasses.

Cross Border Issues

4.35 The Performance Audit noted there were potential difficulties in responding to outbreaks of emergency diseases across state and territory borders because there were no formal Memoranda of Understanding between jurisdictions:

> Although AUSVETPLAN provides some support for a consistent approach to cross border emergency responses, greater understanding and integration of animal health activities is required. MOUs would supplement AUSVETPLAN and bring State emergency animal

[26] Audit Office of New South Wales, 2002, *op cit*, p49-50
[27] Whole of Government, Submission No.14, p10
[28] Association of District Veterinarians of NSW, Submission No.7, pp5-6

disease arrangements closer together. Most importantly they would promote more timely and effective management of initial responses to cross border outbreaks.[29]

4.36 In its response to the Performance Audit in 2002, the Department stated that the intergovernmental Primary Industries Steering Committee had considered cross border cooperation and that negotiations would continue.[30]

4.37 Four years later, the Whole of Government submission to this inquiry reported that two Memoranda of Understanding had been developed with the Australia Capital Territory and Queensland. These have not yet been signed. Discussions were underway on developing similar agreements with South Australia and Victoria.[31] The submission also pointed out that cross border issues have been tested in exercises. This was done most recently in Exercise Rawhide in March 2006 which tested cross-border issues in relation to a terrorist release of foot and mouth disease in Queensland.

4.38 The Committee asked witnesses from the Department of Primary Industries about the timing of completing these agreements and the reasons why they have taken so long:

> **Mr EGGLESTON:** As you can imagine, memorandums of understanding between States take a fair amount of time to work through the issues. We have three at the moment. The first one that will be completed, I think it is with Victoria.... We will probably get that one completed within six months. It is a narrower memorandum which only involves animal health type matters, but it will cover such things, because this was tried out in Exercise Minotaur on the Queensland border and it did not work that well, having one control centre covering a cross border, if you like to call it. So if the majority of the restricted area was on the Queensland side of the border or the Victorian side of the border, that is where the control centre would be.
>
> There are a lot of legal issues to work through with that process because that would ostensibly put the local control of that centre in charge of some operations with regard to that restricted area in New South Wales. So that is what takes the time. So with the Victorian one we believe we will get it completed within six months. With the Queensland one there seem to be more legal issues. New South Wales does not have any concerns with the current draft, but I understand the Queenslanders do so we are still following that up with them. The third one, which is a different one again, is with the Australian Capital Territory. We originally had the Australian Capital Territory one primarily following the Canberra bushfires. So it is not only covering animal health issues; it is covering all animal issues because we believe we have expertise and resources which could assist the Australian Capital Territory in those situations through the networks we have with all the animal welfare groups in New South Wales for that matter and the staff we have who are competently trained to assist in those situations.
>
> That MOU has taken longer to develop....We have received back from the Australian Capital Territory in the last couple of months that they are ready to renegotiate the MOU because what they had to first do was get agreement within their own emergency management structures as to how that happened. As I said, with cross-border arrangements, the legal issues where everybody is dealing with different legislation, it takes some time to complete.[32]

4.39 The Committee acknowledges that the Department is conscious that this is an area requiring enhancement and that progress on the agreements depends the cooperation

[29] Audit Office of New South Wales, 2002, *op cit*, p52
[30] *ibid.,* p9
[31] Whole of Government, Submission No.14, p9
[32] Transcript of Evidence, 8 August 2006, pp15-16

of other jurisdictions. However it is a matter of concern that in the four years since the Performance Audit these MOUs have not yet been finalised.

RECOMMENDATION 2: In order to improve the response to animal health emergencies, that the Department of Primary Industries prioritise the finalisation of Memoranda of Understanding with the four jurisdictions bordering New South Wales.

Animal Disposal Sites

4.40 The Performance Audit Report considered that effective strategies for animal disposal are of vital importance during emergency disease outbreaks and found that New South Wales lacked such a strategy at that time.[33]

4.41 If slaughtering large numbers of animals is necessary to contain an outbreak of emergency disease, the carcasses need to be decontaminated and disposed of in a way that minimises the risk of contamination of ground water and the spread of pathogens. As explained by a witness from the Department of Health, Dr Jeremy McAnulty, the appropriate steps depend on the nature of the disease or contaminating agent, the size of the outbreak and the type of animal.[34]

4.42 Such disposal can be expensive. The Performance Audit Report noted that in response to the outbreak of virulent Newcastle disease in 1999, nearly two million birds were buried in cargo containers in lined pits. At the time of the audit, maintenance of these pits cost around $1 million per year.[35]

4.43 The Performance Audit Report noted that a taskforce consisting of the Department of Agriculture and the State Emergency Committee was working on carcass disposal issues. It was meant to have completed this task by September 2002.[36]

4.44 The Whole of Government submission to this inquiry noted that significant work had been done on this issue in the past four years. The AUSVETPLAN now contains operational manuals on humane disposal of animals, decontamination and disposal of animals as well as technical guidance on the persistence of various disease agents in various animals and animal products. This is important for determining an appropriate disposal strategy. The submission also reports on the consideration of other methods of disposal including in electric generators and kilns.[37] The Department of Primary Industries has worked on aerobic composting as another solution, an experiment described as "promising" by a witness from the Department of Health.[38] Up to 82 sites have been identified for possible uses as burial sites for animal carcasses.

4.45 The NSW Farmers' Association submission noted that not many members have contacted the Association about this issue even though there have been numerous consultations. It concludes that rural communities are reasonably happy with the consultation process and the identified sites for disposal. However, the Association also points out that such approval can be sorely tested by a real emergency and

[33] Audit Office of New South Wales, 2002, *op cit,* pp48-49
[34] Transcript of Evidence, 9 August 2006, pp10-11
[35] Audit Office of New South Wales, 2002, *op cit*, p48
[36] *ibid.,* p5, 48
[37] Whole of Government, Submission No.14, p8
[38] Dr Jeremy McAnulty, Transcript of Evidence, 9 August 2006, p10

requests that the Department of Primary Industries continue to involve local communities in discussions on the continuing need for the sites, disposal methods and risk mitigation measures to protect the environment and human and animal health.[39]

4.46 The Committee notes the importance of communicating openly and often with the industry and the community in order to maintain public confidence in emergency disease planning.

RECOMMENDATION 3: The Department of Primary Industries continue to consult local community about emergency planning and sites for disposal to retain confidence in the event of a genuine emergency.

ROLE OF EXERCISES IN PREPAREDNESS

4.47 The Committee notes that the Government regularly tests the robustness of the plans and adequacy of preparedness by participating in simulated emergency exercises. Mr Doug Hocking, Executive Director Biosecurity, Compliance and Mine Safety, explained the rationale for this approach:

> The use of simulation exercises in this regard is an important aspect of testing plans, policies and operating procedures that will improve New South Wales' preparedness for a real emergency. The two biosecurity exercises conducted in the last few years, Exercise Eleusis 2005, which consumed considerable resources in our organisation and so it should, and Exercise Minotaur in 2002, which tested New South Wales's preparedness for a foot and mouth outbreak, have been an important part of ensuring the procedures, plans and policies in place for this State are effective and appropriate.[40]

4.48 The importance of these exercises was supported by Mr Chris Bowdler, Performance Audit Leader, from the Audit Office:

> **Mr BOWDLER:** We are aware of those simulations occurring subsequent to our audits. To us they are fundamental for preparedness. It has been our history that the outbreaks are not frequent, emergency animal diseases are not frequent, therefore simulations are required to keep the people well tuned in the case of an emergency.[41]

Avian Influenza – Exercise Eleusis

4.49 In late 2005, New South Wales participated in Exercise Eleusis which tested the effectiveness of responses to a simulated outbreak of avian influenza. Mr Graeme Eggleston, Director Emergencies and Strategic Response for the Department of Primary Industries, described the role of the whole-of-government committee established to deal with the risk of avian influenza before and after this Exercise:

> **Mr EGGLESTON:** The committee that has been set up for Exercise Eleusis was formed under the State Emergency Management Committee as a working group. It has all what are called the functional areas. Under the State disaster plan there are six or seven functional areas. You have Transport, Environment, Health, DOCS, who look after human welfare plus us, and Commerce who do the engineering side of it. All those key players were there, including Premier's Department. We looked at all the issues that were outstanding prior to Eleusis that we have been working on and said how do we resolve

[39] NSW Farmers' Association, Submission No.4, p9
[40] Transcript of Evidence, 8 August 2006, p2
[41] *ibid.,* p29

> some of these issues because it was a little bit different in that we were talking about a disease that was a human zoonotic, which can be spread from animals to humans, so we had to take those issues into account as well.
>
> We worked through the issues and we had an action plan of all the things that had to be done. We completed all our outstanding matters prior to the exercise. Because we had that whole-of-government approach, during the exercise at the State Emergency Operations Centre in the police centre in Campbell Street we had 38 people from various organisations. No other State had that. No other State had their emergency operations open on a permanent basis during the exercise. Others were opened just by way of phone. That is one of the things we were commended on in the exercise because it was a whole-of-government approach. The involvement of our Deputy State Operations Controller, Assistant Commissioner Mark Goodwin, was invaluable in that and also the Deputy Commissioner of Police, Andrew Scipione, was very valuable and they were fully committed to that exercise. We tested all the procedures.
>
> After Exercise Eleusis itself we again had a debrief of the things we felt we could do better, and that is always the case—nothing works perfectly until you have tried it—and as a result of that the State Emergency Management Committee resolved that we would broaden the scope a little bit because whatever we had to do to respond to matters from Exercise Eleusis would apply to other animal health emergencies. So in the next 12 months the State Emergency Management Committee has formed what is called an animal health working group, which is just a follow-on from the working group from Exercise Eleusis. We have a number of issues that we are working through at the moment. We meet probably once every two or three months. Again, it is all the different agencies—Transport, and Environment, Health, Commerce, Premier's—all involved with different tasks. Some of them are cross-agency. There is a little group called the transport group, which involves transport, us and environment, looking at how we might better transport bulky material off site, this type of thing, because an issue of disposal may come up. They are the types of issues this group is looking at the moment. Again, because we have a network, which we do all the time in emergencies, those other agencies are more willing to come on board and to visit as a whole-of-government type of approach.

4.50 This indicates that the New South Wales Government is performing at least as well as other jurisdictions in planning for emergency responses. The commitment of significant resources to develop structures for a whole-of-government response is commendable. It is hoped that this can be retained for future exercises.

Foot and Mouth Disease - Exercise Rawhide

4.51 As mentioned above, in March 2006, the Department of Primary Industries and NSW Police participated in Exercise Rawhide which tested the capacity to respond to the release of Foot and Mouth Disease as part of a terrorist attack in Queensland. Mr Eggleston described the Department's role in this exercise alongside agencies such as the counterterrorism unit:

> **Mr EGGLESTON:**.... The main thing to come out of that was that, as we had been discussing continuously with the counterterrorism unit in New South Wales when this type of thing might happen, we may inadvertently destroy a crime scene, if you like to call it, in the process of establishing whether there is an exotic disease in the beginning or not, because we will not realise that it is a terrorist threat until we start to collect the information. The counterterrorism unit certainly accepts that and is working with us.

> They are giving us procedures that we may follow to try to minimise the chance of that happening, but it probably still will happen and they accept that.[42]

4.52 The Committee asked for publicly available reports on the conduct of this exercise as a way of evaluating the effectiveness of the State's level of preparedness. Previous exercises such as Exercise Minotaur and Exercise Eleusis led to evaluations published a few months after the exercise. However, the Department of Primary Industries has advised that it was not able to provide the Committee with any public reports from Exercise Rawhide, primarily because of security concerns:

> Amongst other things, Exercise Rawhide tested the State's preparedness to deal with a bioterrorism incident. A number of matters dealt with in that Exercise are considered to be sensitive and highly confidential. It has therefore been decided by a number of agencies to not publicly release a report on the Exercise. Accordingly, NSW DPI is unable to provide the Committee with a copy of a report or other review of Exercise Rawhide.
>
> NSW DPI however, can report that outcomes from that Exercise have been examined and where relevant, incorporated into NSW DPI's pest and disease preparedness activities.[43]

4.53 The Committee is pleased that the Department was able to incorporate the outcomes of this exercise into its preparedness activities. It also recognises that the Department of Primary Industries is not the only participant in these exercises and therefore is not solely responsible for determining how the outcomes are communicated. However, as the planning and execution of exercises require the expenditure of significant levels of public resources, it would be reasonable to expect that information should be available about how these resources have been spent. Such reports would also be helpful in building confidence with the public and assuring both them and industry that plans are in place. These reports could exclude material of a security nature if necessary.

RECOMMENDATION 4: That, as a matter of principle, the New South Wales Government provide public reports on the lessons learned from emergency exercises which it manages or in which it participates. If necessary, such reports should exclude material which might jeopardise security.

EFFECTIVENESS OF IMMEDIATE RESPONSE

4.54 Emergency responses consist of three phases:

- Incident identification;
- Emergency response phase; and
- Proof of freedom phase.[44]

4.55 The effectiveness of the immediate response phase depends on the speed of detection and on the level of readiness of qualified staff to participate, their understanding of their roles and their ability to delegate their day to day responsibilities.

4.56 As noted above, New South Wales is unique within Australia in having its own rapid response team of up to 185 people who can be called on in an animal disease

[42] *ibid.,* 8 August 2006, p15
[43] DPI, Answers to Questions on Notice, 25 October 2006, p12.
[44] Animal Health Australia *Government and Livestock Industry Cost Sharing Deed in Respect of Emergency Animal Disease Responses*, pp14-15

emergency. It has implemented comprehensive whole-of-government arrangements for the emergency response phase.

4.57 The Performance Audit made two recommendations about improving and measuring these arrangements. During the inquiry, the Committee also heard that there were concerns about the respective roles and responsibilities of staff of the Department of Primary Industries and Rural Lands Protection Boards in an emergency response.

Administrative Arrangements – relationship between Department and RLPBs

4.58 The Association of District Veterinarians expressed some disquiet about the fact that the restructuring of the Department of Primary Industries had led to a reduction in departmental staff who were trained veterinarians in disease control centre roles, especially in veterinary investigations. In turn, there was an increased reliance on staff of Rural Lands Protection Boards for control centre roles whereas, in the past, District Veterinarians had only assisted the Department in emergency responses. The Association was also concerned that the departmental staff in these roles were not provided with adequate time to take a leadership role in emergency disease management. This has meant that progress on updating Standard Operating Procedures for veterinary investigations has been less than ideal because the Department was not allocating adequate resources to this process. The Association considered it more appropriate for the Department to take the lead on this process than Rural Land Protection Boards' staff.[45]

4.59 Mr Steve Orr, Chief Executive of the State Council of RLPBs, commented that 18 members of the State's 185 first response team were Board staff who were required to meet certain competencies to retain these roles.[46] The Committee notes that this is a significant level of participation. The Association of District Veterinarians expressed concern that the State Council did not treat emergency disease preparedness with high enough priority compared to other board responsibilities such as managing endemic diseases.[47] In a hearing, a representative of the Association indicated that there was pressure on District Veterinarians from within the Boards not to attend emergency animal disease training.[48] However, when asked about the relative importance of emergency and endemic diseases, the Chief Executive Officer of the State Council of RLPBs, told the Committee:

> **Mr ORR:** They are both very important issues. Certainly our preparedness for emergency disease is an absolute priority. As we have indicated we have a number of board staff who are involved and ready because of the training which they have done to respond to emergency disease. I do not think it is the case of one or the other; we have to do both. We certainly see response to emergency disease as an absolute priority. We are all pretty well aware of the potential impact that can have on our export markets and the like. It is very important that we are ready for those types of outbreaks. At the same time we need to respond to endemic diseases as appropriate.[49]

4.60 The Committee remains concerned that the relationship between the two organisations needs effort on both sides to maintain commitment to emergency animal health

[45] Association of District Veterinarians, Submission No.7, pp5-6
[46] Transcript of Evidence, 8 August 2006, p23
[47] Association of District Veterinarians, Submission No.7, p5
[48] Mr Keith Hart, Transcript of Evidence, 9 August 2006, p19
[49] Transcript of Evidence, 8 August 2006, p24

readiness. As professional staff committed to performing their roles well, frontline staff need support from within their Boards to prepare for emergencies.

Administrative Arrangements – Chief Veterinary Officer

4.61 The Performance Audit found that there was some conflict between the dual role of the Chief Veterinary Officer (CVO) as the technical adviser in Emergency Animal Disease Management and as one of several managers within the Department. The Report considered that there was a risk that this situation might slow down commencement of response action and recommended that the CVO be empowered to report directly to executive management during an emergency to resolve issues rather than operating within the Department's hierarchy.[50] Since the Report, the Department of Agriculture has been restructured as part of the creation of the new Department of Primary Industries. The Association of District Veterinarians expressed concern that the CVO was now also responsible for plant and bee health issues. It recommended that these responsibilities be removed and that the CVO have an independent budget.[51]

4.62 The Whole of Government submission indicated that procedures are in place during actual or simulated emergencies to delegate the CVO's managerial responsibilities to one of three deputies. The effectiveness of these arrangements has been tested in exercises.[52] The Committee is satisfied that this response indicates the potential conflict in the roles has been resolved and that the CVO has the authority to perform the duties required in an emergency.

Recent response activities

4.63 The Whole of Government submission included a list of the disease investigations carried out from 2000 until 2004. In many cases, such as the BSE investigation in 2004 and the Foot and Mouth Disease investigations, the disease was ruled out but emergency procedures are activated until this occurred. The table also shows examples of the types of diseases investigated. These examples do not include all the diseases investigated).

4.64 In most years, the number of incidents in New South Wales was a significant proportion of the national total.

Table 4.2 – Number of Emergency Disease Investigations/confirmations in NSW and Australia 2000-2004

YEAR	2000	2001	2002	2003	2004
Australian total	104	149	178	135	131
NSW Total	22	71	83	100	97

[50] Audit Office of New South Wales, 2002, *op cit*, p4, p7
[51] Association of District Veterinarians, Submission No.7, p3
[52] Whole of Government, Submission No.14, p6

YEAR	2000	2001	2002	2003	2004
Examples					
Anthrax	-	26	34	61	56
Avian Influenza	1	2	-	3	12
Foot and Mouth Disease	4	9	3	5	2
Hendra Virus	3	-	2	2	1
BSE	-	-	-	-	1
Newcastle disease	11	21	21	11	11

Source: Whole of Government, Submission No.14, p.15

Measuring New South Wales's Performance

4.65 The Committee could not find objective information about the relative performance of New South Wales in managing animal emergency diseases. The Performance Audit Report recommended that response benchmarks be developed to improve the management of initial emergency response actions. In particular, the Report recommended they include the timing of identification and response actions and the level of cooperation between government and industry.[53]

4.66 Some progress has been made in this area, although the Department has not reported on its performance. The Whole of Government submission indicated that response benchmarks had been developed for tactical responses within New South Wales and work continued on developing strategic benchmarks at state level. New South Wales was also working to establish a national committee which would develop procedures including benchmarks.[54]

4.67 The Committee notes that there are certain performance requirements for the emergency response arrangements. For instance, it is a responsibility of government parties to the emergency animal disease cost sharing deed to notify the Consultative Committee on Emergency Animal Diseases within 24 hours of becoming aware of an outbreak. If this is not done, the cost sharing arrangements do not apply.

4.68 The Animal Health Performance Standards for emergency animal diseases only contain one specific time related measure for government performance. This requires government members to document the average time elapsed between receiving samples and notification of a diagnosis.[55] The reporting of New South Wales's performance in meeting these standards is not published.

4.69 On the other hand, the Committee notes that Animal Health Australia considered that New South Wales was well equipped to deal with emergency responses on a local stage:

> NSW DPI has a proven capability to manage smaller EAD inclusions effectively, viz Newcastle Disease at Mangrove Mountain and more recently the oyster disease outbreak.

[53] Audit Office of New South Wales, 2002, *op cit*, p7
[54] Whole of Government, Submission No.14, p7
[55] Animal Health Australia, *National Animal Health Performance Standards Version 3*, p55

> The jurisdiction has recognised the need to actively participate in capacity building at all levels within NSW DPI.[56]

4.70 The Committee is reassured that, the apparent degree of seriousness and the level of resources that the Department has committed to its immediate response capacity suggests that emergency outbreaks of animal and plant diseases will be adequately responded to although it has no objective criteria to assess the performance of the effectiveness of this response. On the basis of the evidence before it, the Committee concludes that the immediate response capacity to deal with an emergency animal disease outbreak is reasonably effective and possibly superior to the capacity of other jurisdictions. However, there is a gap in the measurement of this performance which should be reported at a state and national level.

RECOMMENDATION 5: That the Department's performance against tactical and strategic benchmarks be regularly reported in annual reports or animal and plant health emergency evaluation reports and compared to other jurisdictions where possible.

[56] Animal Health Australia, Submission No.13, p3

Chapter Five - Effectiveness of Surveillance

5.1 The severity and length of disease outbreaks can be reduced if they are identified early and an appropriate response is implemented quickly. This is particularly the case for diseases that can move between species. Central to preparedness is ensuring that workforce and information systems are in place to perform adequate surveillance of disease risks and to report incidents effectively and efficiently. This Chapter discusses the effectiveness of current surveillance systems in New South Wales and identifies concerns raised in the course of this inquiry about the level of human and financial resources available to surveillance activities and potential gaps in the surveillance system.

5.2 The Whole of Government submission stated that the maintenance of adequate surveillance systems was vital for creating assurance in trading partners who periodically assess Australia's performance. Around six groups visit each year to examine livestock systems. A delegation from the European Union is scheduled to visit in late 2006 to audit the surveillance of animal health with a special emphasis on the national program to demonstrate freedom from Transmissible Spongiform Encephalopathy (TSE).[1]

TYPES OF SURVEILLANCE ACTIVITIES

5.3 Disease Surveillance refers to activities designed to provide reliable information on the level of diseases in the target population. Clearly, it is impossible to know the health status of all animals at all times and it is more important to know about the levels of some higher risk diseases than others. For this reason, "passive surveillance" where veterinarians report incidents of notifiable diseases, is used as well as "active surveillance", where targeted samples are collected from across the State and tested for particularly virulent diseases to assess their prevalence.

Animal Health Surveillance

5.4 There are a number of national targeted animal health surveillance programs. Animal Health Australia manages the National Arbovirus Monitoring program, TSE Surveillance Program and the Tuberculosis Freedom Assurance Program. Other national tools that have a surveillance role are the National Pig Health Monitoring Program, the National Sentinel Hive Program and the National Livestock Identification System. The Animal Wildlife Health Network manages surveillance of diseases in the wildlife and there are programs to monitor infections of zoonotic diseases (which can affect human health) such as the National Notifiable Diseases System, the National Enteric Pathogen Surveillance Scheme and Japanese encephalitis surveillance.[2]

5.5 New South Wales contributes to national reporting of disease prevalence through the Animal Health Information Systems (AHAIS) which is used to produce reports on

[1] Whole of Government, Submission No.14, p5
[2] Animal Health Australia, *Animal Health in Australia 2005*, p15

disease status to the OIE, a surveillance quarterly publication and an annual animal health report.[3]

5.6 New South Wales participates in all these programs through the Department of Primary Industries and the Rural Lands Protection Boards. Industry and private sector professionals have responsibilities to report problems with animal health to the Department. The Department of Environment and Conservation is involved with wildlife surveillance and the Health portfolio monitors human health incidents.

5.7 Within New South Wales, the Department of Primary Industries has also developed specific surveillance programs to address local disease risks which are identified in a state-wide surveillance operational plan.[4]

Plant Health Surveillance

5.8 The Committee also notes that Plant Health Australia has recently launched a national plant pest and disease surveillance system, the National Plant Health Surveillance Reporting Tool. For the first time, there is a web-enabled national surveillance database to help strengthen knowledge of its plant health status. It will contain summary data on all plant health surveillance activities and will be used to report health status for trading partners and to assist in developing future work priorities. It is a major step towards establishing a national plant health surveillance network. [5]

ADEQUACY OF RESOURCES

5.9 The Whole of Government submission states that it is a requirement under national agreements for the states to demonstrate that they have adequate preparedness and surveillance systems. This is funded from the State Budget (rather than industry levies) as a preventative strategy to reduce overall costs of outbreaks.[6]

5.10 Such programs can be victims of their own success: if they have succeeded in preventing emergency outbreaks, it can be hard to demonstrate the need for these programs. As the Performance Audit Report noted, the resources devoted to the preparedness activities of training, surveillance and simulation exercises can be hard to defend in the face of shrinking budgets and competing priorities.[7] However, the Committee heard from the NSW Farmers' Association and the Association of District Veterinarians that the reduction in the level of resources for surveillance was a potential risk to disease management. In 2001, Animal Health Australia's baseline surveillance study suggested that there was a significant under-investment in surveillance activities nationally.[8]

5.11 The Department of Primary Industries' *Animal Health Surveillance Operational Plan* acknowledges that it can be extremely difficult to define an adequate level of resources for surveillance activities:

[3] Animal Health Australia "National Animal Health Information System", available at http://www.animalhealthaustralia.com.au/status.nahis.cfm (accessed 17 October 2006)
[4] DPI, A*nimal Health Surveillance in NSW: Operational Plan 2004/05-05/06*
[5] Plant Health Australia, *Plant Health News*, 30 October 2006
[6] Whole of Government, Submission No.14, p5
[7] Audit Office of New South Wales, 2002, *op cit*, p34
[8] Cited in DPI, A*nimal Health Surveillance in NSW: Operational Plan 2004/05-05/06, p2*

> In the fickle and, in some senses, corrupt world of agricultural trade, there is no such thing as a minimum acceptable level of surveillance; a level which trading partners universally accept as adequate to fulfil the responsibilities of the *veterinary authority*. Similarly, there is no minimum level of surveillance that will sensibly detect incursions of exotic or emerging diseases. This makes it difficult to judge when levels of surveillance are "acceptable".[9]

5.12 This indicates that unless rigorous risk analysis techniques are applied to surveillance planning, there is a significant chance that adequate resources may not be available.

Level of resources in 2005-06

5.13 In 2005-06, the Department of Primary Industries allocated a total of $485,000 on plant and animal surveillance projects. This is marginally more than the $478,000 budgeted for in 2003-04 and significantly higher than the $402, 409 actually spent in 2004-05. The table below shows the type of projects funded.

Table 5.1 - DPI Animal and Plant Diseases and Pest Surveillance Projects 2003-4 to 2005-06

Project	Budget allocation 2003-04	Funds Expended 2004-05*	Budget Allocation 2005-06
Endemic Notifiable animal diseases including OJD and BJD	$50,000	$11,495	$50,000
Granuloma survey – Tuberculosis Freedom Assurance Program	$12,500	$13,661	$9,000
Endemic plant and pests (currant lettuce aphid, YC Ant, citrus canker)		$23,834	$57,000
Footrot strategic plan		$29,521	$30,000
Fish disease surveillance			$30,000 minimum
Exotic notifiable diseases animal project	$34,121	$17,930	$20,000
Exotic plant and forest disease project			$15,000
Mortality investigations in animals to enhance specimens through labs	$170,000	$37,427	$50,000
National arbovirus monitoring program	$16,000	$41,285	$18,000
District and targeted surveillance to facilitate on-farm surveillance	$150,000	$193,702	$160,000
Plant Health Diagnostic Service (PHDS)	$46,110	$33,533	$46,000
TOTAL	**$478,731**	**$402,409**	**$485,000****

*2004-05 figures are actual funds expended, not the Budget allocation.
Sources: Whole of Government, Submission No.14, p.5 for 2005-06 data, email correspondence from DPI officer to secretariat, 14 November 2006, for 2003-04 and 2004-05 data.

[9] *ibid.,* pp2-3

5.14 When asked about the level of funding in the current financial year, Mr Doug Hocking, the Executive Director of Biosecurity, Compliance and Mine Safety, advised that the budget had not yet been finalised but they would expect no significant changes.[10]

5.15 This allocation does not include the amount spent on surveillance by Rural Lands Protection Boards, although the Department's notes that this level is extremely variable:

> Funds allocated by the RLPBs for the purposes of animal health are not included. This figure is approximately $7M. The proportion of this amount attributable to actual disease surveillance varies between Boards. Many Boards are finding because of the burdens of regulatory programs and other problems (including absence of a District Veterinarian) that the actual amount attributable to disease surveillance for the purposes of the definition in this paper is effectively zero.[11]

5.16 The Committee considers that the effectiveness of surveillance could be compromised unless surveillance activities performed by frontline staff are integrated with the activities of other surveillance programs and the private sector. This lack of knowledge within the Department's own Surveillance Operational Plan of the level of surveillance activity in particular regions is a cause for concern but should be addressed through the risk management process.

IMPACT OF USER CHARGING ON SURVEILLANCE

User Charging Policy

5.17 In November 1999, the then Department of Agriculture introduced a new policy of recovering costs for diagnostic samples considered to be of "private benefit" which was defined as "testing which is primarily requested to assist individual producers to improve productivity or offset productivity losses due to animal, plant or soil health problems."[12] This policy was designed to enable government resources to be targeted to testing of a general industry or community benefit.

5.18 Importantly, the Circular stated that surveillance information would be maintained by a combination of this private benefit testing, active and passive surveillance programs and special disease management programs. The 1999 policy stated that tests for the presence of endemic or exotic notifiable diseases and emerging diseases would be free of charge. Tests under some disease programs such as Bovine Johne's and the footrot eradication program would be subsidised or free to producers.[13]

5.19 All diagnostic testing requested by Rural Lands Protection Boards staff was to be charged to the Board unless the Department had previously agreed to subsidise or waive the charges. If veterinarians suspected a notifiable or emerging disease was present, the specific test for this would be free but, if it is was ruled out, there would

[10] Transcript of Evidence, 8 August 2006, p10
[11] DPI, *Animal Health Surveillance in NSW: Operational Plan 2004/05-05/06, p*10
[12] NSW Agriculture *Circular No 99/101 NSW Agriculture Diagnostic and Analytical Services*, tabled by Mr Keith Hart 9 August 2006, p2
[13] *ibid.,* p3

be a fee for testing to determine the actual disease.[14] This is precisely the sort of testing that can lead to the identification of new exotic diseases.

5.20 Under the current charging policy, the Department provides a subsidy of up to $140 to investigate the causes of death of most commercial livestock although producers must meet the first $80 of laboratory costs. For poultry to qualify, at least 100 birds must have died. Unborn or new born mortalities are not eligible.[15] In some cases, the cost of testing can exceed the value of a beast at market. As the policy excludes also non-commercial primary producers, there are real risk that testing may be avoided if it is not found to be cost effective.

How testing rates have changed

5.21 The Performance Audit Report noted that there had been a 55 per cent decrease in the number of animal and plant samples submitted to NSW Agriculture laboratories between 1998-99 and 2000-01, from almost 800,00 samples to around 350,000.[16] The number of samples reduced even further the following year, to less than 270,000, however, the number has increased slightly in more recent years to more than 400,000.

Table 5.2 - Number of samples submitted to NSW Agriculture laboratories for testing 1998-2005

1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05
780,528	506,537	347,754	266,798	351,104	409,637	420,000

Sources: NSW Department of Agriculture, *Annual Report 2001-02*, p.7 and NSW Department of Primary Industries, *Annual Report 2004-05*, p.31

5.22 When asked about decline in testing, witnesses from the Department of Primary Industries explained that the user charging policy was designed so that government funds could be targeted towards diseases of greater national priority in a risk-based approach rather than those of benefit only to individual producers:

> **Mr EGGLESTON:** I think the figures show there has been a decline in the number of samples tested, but what the department resolved to do back in 1999, I think it was, was to put in place a cost-recovery mechanism for that testing which was believed to be private good, and used government funds directed towards surveillance activities that support protection of the diseases of importance from the animal health point of view across the board and put in place active surveillance programs to do that. So, while there has been in real terms a decrease in the number of samples, the samples we are now testing are more useful to us in meeting our surveillance requirements to maintain export markets.
>
> **Mr STEVE WHAN:** The auditors' original report showed some figures that showed a steep decline, which you have acknowledged there, in the number tested and also highlighted the reduction in the number of voluntary sampling. Has the program you put in place resulted in that sort of stabilising or is the number of tests coming back up? I have had

[14] *ibid.,* Attachment "NSW Agriculture Diagnostic and Analytical Services Laboratories and Fees for Laboratory Tests", pp4-5

[15] DPI, "Disease Surveillance", available at http://www.dpi.nsw.gov.au/agriculture/vetmanual/submission/disease-surveillance (accessed 16 October 2006)

[16] Audit Office of New South Wales, 2002, *op cit*, p41

it expressed to me by people that the reduction in voluntary testing is a threat. Is it something you see as a threat or do you think you are coping with it?

Mr EGGLESTON: I think we are coping with it. If you look at the number of samples that are being tested, I think it was approximately around the 700,000 mark. In 1999 it dropped to about 220,000. I think in the past 12 months it was about 420,000, so it has come back up a little. As I said before, the type of testing being done now is more in support of getting the information we want to demonstrate our freedom and do active surveillance in terms of the detection of animal health type situations that we should know about than what it was before. So, it is more targeted.

Mr HOCKING: I might just add to that that our targeted testing is a well set out program and we will pay for those tested that go through the laboratories. That is part of our risk-based approach to diseases that have been identified as either significant animal health risks or significant risks to market access to overseas trade.[17]

5.23 The NSW Farmers' Association attributed the recent increase in samples to the fact that laboratories were required to operate at a profit. However, the Association argued that most of the increase was related to import or export certification rather than mortality investigations.[18]

5.24 While the Department considered the user charging policy was applied where there was likely to be only a private benefit from testing, Mr Keith Hart from the Association of District Veterinarians suggested that if farmers had to pay for the full impact of user charging, new exotic diseases would not always be identified:

Mr HART: Let me put it to you this way. There were two issues that I was personally involved in. One was actually mentioned in the district veterinarians submission, and I put it there, relating to two outbreaks that occurred, one in 1997, which was a new disease never before known to science called Menangle virus—it was mentioned in the original submission of this Committee—and the second was an outbreak of virulent Newcastle disease virus in Blacktown in my district in 1998, both prior to this system coming in place. The amount of testing that was done to investigate those two diseases, all funded by the New South Wales DPI, was enormous—over at least a month in both cases to exclude the commonly known diseases and make sure that, because common things occur commonly, you do not always just jump at "Oh, that must be an exotic disease". In both cases—well, in one case it was a disease that had not been known before so you are not going to go there until you have actually excluded everything else.

I spoke to the consultant of the piggery, going back to 1997, after the 1999 diagnostic charging process came in and he said there is no way that the owners of that piggery would have paid for all the tests required to exclude common diseases if it was on a full cost-recovery basis. We would never have found Menangle Virus under this regime. In 1999 I spoke to the owner of the poultry farm in 1998—I spoke to him in 1999, after this thing came out—and I asked him the same question: Would you have been prepared to pay for all the tests that were done by your private veterinarian and the government veterinarian to exclude common diseases of poultry that looked similar, because this particular strain of Newcastle Disease was not presenting as the classic picture of you open the shed and there is a heap of dead chooks. He said: No way, I would have just buried them. So, there are two examples. If they had occurred after 1999, we would not have found out about them.[19]

[17] Transcript of Evidence, 8 August 2006, pp6-7
[18] NSW Farmers' Association, Submission, No.4, p2
[19] Transcript of Evidence, 9 August 2006, pp15-16

5.25 The former Auditor-General, Mr Bob Sendt commented that there can be problems with the introduction of user charges if the benefits are not clear to users:

> **Mr SENDT:** As a general principle user-pays testing will work only if the users accept that they are getting a benefit from it. If it is compulsory testing it may well suffer from the same problems that the OJD levy suffers from, in that part of the industry did not really see that they were impacted by the disease and resisted payment of the levy. To be fully accepted, the user-pays testing fee would need to provide demonstrable benefits to the people paying the fee.[20]

5.26 Mr Hart expressed concern that the introduction of these user charges was discouraging producers from seeking professional advice because of the cost:

> **Mr HART:** ....The circular was brought out in 1999. The policy has been in place since then. As you will find, if you look at the New South Wales Farmers submission, there has been a major drop in diagnostic submissions since then. In fact, we are training farmers not to report disease problems because they are afraid of getting a large bill if they do so.[21]

5.27 The NSW Farmers' Association also argued that there was little incentive for farmers to submit samples as, if a disease was found, the regulatory response could be quarantine of the property.[22]

5.28 The Committee is not in a position to recommend changes to this user charging policy but it would be concerned if this policy has contributed to a decline in the surveillance capacity of the State. The Committee notes that the *Surveillance Operational Plan* acknowledges that there may be producer resistance to testing for notifiable disease and proposed establishing blind surveys to give a more stringent estimate of disease prevalence.[23] This would address potential shortfalls in surveillance. However the Committee considers that, in times of low farm incomes such as the current drought, there should be some discretion in the application of user charging policies.

RECOMMENDATION 6: That the Department of Primary Industries consider applying discretion to the use of user charging policies for testing in times when farm incomes are affected by external circumstances such as widespread drought.

TARGETED SURVEILLANCE

5.29 As mentioned above, New South Wales currently participates in national and state based targeted surveillance programs. The Performance Audit Report noted that, after introducing the user charges for laboratory testing, the Department initiated a targeted surveillance strategy with an allocation of $530,000 in 2001-02. However the Audit found that this had not been well implemented and that veterinarians had submitted well below the expected level of samples. The Report also noted that, at that stage, sampling was not representative of all industries and regions and considered that this program could be improved.[24]

[20] Transcript of Evidence, 8 August 2006, p30
[21] Transcript of Evidence, 9 August 2006, p14
[22] NSW Farmers' Association, Submission No.4, p2
[23] DPI, A*nimal Health Surveillance in NSW: Operational Plan 2004/5-2005/6*, p6
[24] Audit Office of New South Wales, 2002, *op cit*, p42

5.30 Funding was also provided to Rural Land Protection Boards' District Veterinarians to undertake discretionary surveillance testing. Mr Keith Hart of the Association of District Veterinarians told the Committee:

> A couple of years ago, to give them credit, the DPI attempted to improve the situation slightly by giving district veterinarians a $3,000 per annum discretionary fund for disease surveillance testing. That was cut back to $2,500 in the last financial year and we feel the writing is on the wall as far as that is concerned, given the cutbacks we observe in the DPI in general.[25]

5.31 The Committee acknowledges that this is a time of budgetary restraint with most public sector agencies under considerable pressure to save resources. However, for a comparatively small investment, surveillance activities provide protection to significant agricultural industries, The Committee remains concerned that such a low level of funding is provided for such work.

RECOMMENDATION 7: That the Department of Primary Industries restore the level of discretionary testing funds provided to District Veterinarians to previous levels and maintain these in the future in real terms.

TSE submissions

5.32 Animal Health Australia manages a national Transmissible Spongiform Encephalopathy (TSE) surveillance program to ensure that Australia remains free from Bovine Spongiform Encephalopathy and scrapie (which affects sheep) by sampling a statistically significant proportion of national herds. The program annually examines at least 400 cattle and 450 sheep with signs of neurological disease and 400 "downer" animals (which are too ill or injured to stand[26]). By following up neurological conditions, the program has identified a number of diseases and poisons that can mimic TSE.[27] Abattoirs and private and public veterinarians are encouraged to submit samples. The number and source of samples is reported by the Department of Primary Industries in its quarterly report "Animal Health Surveillance".[28] In 2005, samples from 73 cattle and 81 sheep from New South Wales were examined.[29]

5.33 The NSW Farmers' Association expressed concern that submission rates for samples to the TSE program varied significantly between regions within New South Wales and stated that most of the Western Division and the Yass Rural Lands Protection Board region had not submitted any samples at all. Suggested explanations for this included a lack of effort by local regulatory veterinarians or a fear of regulatory action and costs by primary producers.[30] If this was the case, it could compromise the validity of the surveillance program. The Committee asked the Department of Primary Industries to explain the variation in submission rates. It stated that this can be attributed to both the level of interest of public and private sector veterinarians and producers in

[25] Transcript of Evidence, 9 August 2006, p13
[26] Definition from http://usembassy-australia.state.gov/hyper/2004/0109/epf503.htm (accessed 17 October 2006)
[27] Animal Health Australia "National TSE Surveillance Program", available at http:www.animalhealthaustralia.com.au/aahc/index.cfm?F2DEBDA1-A61B-3FB7 (accessed 16 October 2006)
[28] Although this is meant to be published quarterly, the most recent edition is January-March 2006 Number 2006/1
[29] Animal Health Australia, *Animal Health in Australia 2005*, Canberra, Australia, p21
[30] NSW Farmers' Association, Submission No.4, pp2-3

reporting and to the uneven distribution of poisonous plants and diseases across the State that can affect stock with similar symptoms to TSE.[31]

5.34 The Committee notes that the process of updating the *Surveillance Operational Plan* each year should identify areas of greatest need of action through consultation with experts. The Plan also claims that the State has been meeting its targets for national surveillance programs.[32] However, it is an ongoing task to ensure that a representative sample of the herd is submitted to the TSE program and the Committee considers the Department should work to improve the level of interest in public and private sector veterinarians to submit samples across regions.

RECOMMENDATION 8: That the Department of Primary Industries make every effort to meet its targets for the TSE program and encourage public and private sector veterinarians across the State to submit samples. The Department should include reports on its performance against these targets in annual reports.

Reporting on surveillance

5.35 The *Animal Health Surveillance Operational Plan* provided the following analysis of animal health surveillance activities from January 2004 to March 2005. This does not include the plant and pest diagnostic services.

Table 5.3. Count and $ spent on laboratory investigations by Senior Field Veterinary Officer (SFVO) Region for Notifiable Disease investigations, January 2004 – March 2005

	Notifiable endemic		Emerging/difficult		Exotic disease exclusions		Total	
Region	**Count**	**$**	**Count**	**$**	**Count**	**$**	**Count**	**$**
DUBBO	32	2,324			1	66	33	2,390
GOULBURN	90	19,947	4	1,722	38	10,781	132	32,449
GRAFTON	54	3,913	1	996	24	2,787	79	7,696
GUNNEDAH	23	2,454	4	801	2	579	29	3,834
HUNTER	22	3,948	4	557	10	1,538	36	6,042
ORANGE	59	4,045	1	74	2	1,891	62	6,010
WAGGA	45	5,941	28	21,144	4	1,173	77	28,258
Unspecified		1,120				1,784		2,904
Grand Total	325	$43,691	42	$25,292	81	$20,601	448	$89,584

Source: DPI Animal Health Surveillance Operational Plan 2004/05-2005/06 p.6

Table 5.4 Count and $ spent on laboratory investigations by SFVO Region for District Surveillance investigations, January 2004 – March 2005

Region	Count	$
Grafton	290	$49,389
Gunnedah	173	$23,494
Dubbo	68	$13,893
Hunter	88	$18,223
Goulburn	103	$23,624
Orange	133	$18,495
Wagga	44	$17,940
Grand Total	899	$165,057

Source: *DPI Animal Health Surveillance Operational Plan 2004/05-2005/06* p.6

[31] DPI, Answers to Questions on Notice, 25 October 2006, p8

[32] DPI, *Animal Health Surveillance in NSW: Operational Plan 2004/5-2005/6*, p3, p5

5.36 While there is no clear pattern to these tables, they do show that there are surveillance investigations throughout the State. This addresses any possible concerns that particular regions may be excluded. As would be expected, the notifiable disease investigations in Table 5.3, show more variability across regions than the other surveillance activities in Table 5.4 because these would be performed on a needs basis which is hard to predict.

5.37 The Surveillance program also includes targeted surveillance projects and just over $22,000 was spent on these in the same 14 months. These projects are low cost but are important for enhancing the effectiveness of the surveillance system.

5.38 In addition, the Plan claims that New South Wales has met the reporting targets for national surveillance programs established by the animal health performance standards.[33]

5.39 The Committee acknowledges that it is difficult to define a "right" level of resources to test for diseases of unknown prevalence. However, as noted in Chapter 4, priorities are identified in accordance with risk management systems and progress is reported annually through the updated surveillance plan. The Department is employing the appropriate processes to allocate scarce resources to areas where they are likely to make the greatest impact and reviewing the effectiveness of these allocations.

VETERINARY NUMBERS

5.40 The Performance Audit Report found that the State's capacity for surveillance of emergency diseases was compromised by a shortage of government, industry and private veterinarians in livestock practices. The effect of this shortage is likely to be greater in the near future as many of these veterinarians are approaching retirement age.[34] The Report recommended that NSW Agriculture maintain its support for the recruitment and development of livestock veterinarians.[35]

5.41 The Whole of Government submission acknowledges both the ageing workforce and the difficulties of attracting professionals to rural areas.[36] The potential shortage of rural veterinarians is widely known. In 2003 the Commonwealth Departments of Agriculture, Fisheries and Forestry (DAFFA) and Education Science and Technology (DEST) published their *Review of Rural Veterinary Services* (the Frawley Review). This comprehensive review found that, while there was no current shortage of rural veterinarians, it was increasingly difficult to retain professionals in rural mixed animal practices for lifestyle and professional reasons. The Review noted that primary producers did not see value in veterinary services and many practices found it was not viable to rely on livestock services alone. It was difficult for some areas to attract and retain qualified staff. The Review also considered that the veterinary services would need to be enhanced to meet the more stringent future requirements of international trading partners. It recommended efforts to increase demand for the services in the industry rather than artificially increasing the numbers of rural vets. A key recommendation was establishing an Australian Veterinary Reserve of accredited

[33] DPI, *Animal Health Surveillance in NSW: Operational Plan 2004/5-2005/6*, p5
[34] Audit Office of New South Wales, 2002, *op cit*, p4
[35] *ibid.,* p7
[36] Whole of Government, Submission No.14, p6

private practitioners who could assist in emergency animal disease outbreaks and participate in surveillance activities and enhancing the Accreditation Program for Australian Veterinarians (APAV).[37]

5.42 The Frawley Review found that there was a real shortage was in the area of veterinary specialists, where numbers were decreasing because of an ageing cohort and the shrinking of public sector laboratory testing programs, which reduced career opportunities. Nationally, between 1998 and 2001, there was a 19.4 per cent reduction in the number of registered veterinary specialists and a 13 per cent decrease in the number of specialists employed by State and Territory government laboratories. The Review recommended that this shortage be addressed by improving training opportunities for diagnostic specialists and by regular assessments of numbers of specialists.[38]

Public Sector professional staff

5.43 The Performance Audit Report noted that the New South Wales Department does not maintain a comprehensive veterinary service and there has been a significant decline in numbers of both veterinarians and animal health inspectors since 1990. The decline in inspectors was attributed to the completion of the tuberculosis and brucellosis programs and a reduction in the cattle tick program.[39]

5.44 The Association of District Veterinarians expressed concern that administrative changes had let to reduced numbers of departmental veterinary staff in control centre roles in an emergency response and an increasing reliance of Rural Land Protection Board staff. They argued that this reduced the capacity of the State to respond to an animal health emergency.[40]

5.45 The Committee acknowledges that, under current administrative arrangements, it is no longer the role of the Department of Primary Industries to provide frontline veterinary services in most areas. These are now provided by Rural Land Protection Board District Veterinarians and the private sector. However, it is also important that the Department retain a certain level of expertise to advise and train frontline staff. The exception is in the case of pathologists and agronomists where there may be few private sector equivalents to assist industry. Mr Keith Hart of the Association of District Veterinarians expressed a high level of concern about the looming shortage of veterinary pathologists stating:

> All of them … will be out of here in five years. I can see nobody in the wings to replace them.[41]

5.46 At the time of the Performance Audit in 2002, there were 11 pathologists working at NSW Agriculture laboratories. There had been 17 in 1997-98 but, since then, two laboratories at Armidale and Wagga Wagga closed.[42] The NSW Farmers' Association submission states that there used to be 23 qualified agronomists and five laboratories

[37] T.Frawley *Review of Rural Veterinary Services Report*, Departments of Agriculture, Fisheries and Forestry and Department of Education, Science and Training, Canberra, 2003, pp vii-ix
[38] *ibid.,* px
[39] Audit Office of New South Wales, 2002, *op cit*, p38
[40] District Veterinarians Association, Submission No.7, p5
[41] Mr Keith Hart, Transcript of Evidence, 9 August 2006, p21
[42] Audit Office of New South Wales, 2002, *op cit, p*43

but now there are only three laboratories and 11 pathologists. The Association also noted the decline in the number of agronomists and plant diagnostic specialists in the country and a lack of effort to address the shortage with increased training. The industry has sought these skills from overseas.[43]

5.47 The NSW Farmers' Association considered it important for this non-emergency level of technical resources to be independent of commercial interests and also to consist of staff experienced in epidemiology.[44]

5.48 The Committee asked witnesses from the Department of Primary Industries about staffing levels in the Department and potential shortages of professional staff. It was told that 350 staff within the Biosecurity, Compliance and Mine Safety Division were involved with biosecurity issues but staff from other divisions of the Department also participated in some activities.[45] The Committee was unable to obtain details of the number of professionally qualified staff working within the Department in these professional roles, however, the Whole of Government submission mentioned that the Department has five Senior Regional Animal Health Managers with veterinary qualifications who monitor the implementation of animal health policy within each region.[46]

Workforce Planning

5.49 The Committee notes that the Department has made efforts to attract new veterinary professionals to rural practice by offering work experience to some veterinary students.[47] The State Council of Rural Land Protection Boards submission noted that 87 of the 102 final year veterinary students at Sydney University participating in the rural public practice spent four weeks working with RLPBs in 2005.[48] These students were exposed to Boards' operations and a range of animal health issues. The goal of the program is to attract some of these students to working for Boards in the future. The State Council hopes to establish a similar program with the recently introduced veterinary science program at Charles Sturt University in Wagga Wagga.[49]

5.50 Mr Keith Hart of the Association of District Veterinarians saw this new University program as a positive step in addressing the gap in rural vets because the students were more likely to have come from rural backgrounds than students at Sydney University. Mr Hart told the Committee:

> From what I have heard and seen of the people doing the course, I believe that many will graduate and go into rural New South Wales. That is their interest and focus. At Sydney University, the interest and focus of the majority of students is city practice—cats and dogs. That is a given.[50]

[43] NSW Farmers' Association, Submission No.4, p4
[44] *ibid.,* p3
[45] DPI, Answers to Questions on Notice, 25 October 2006, p1
[46] Whole of Government, Submission No.14, p19, Mr Doug Hocking, Transcript of Evidence, 8 August 2006, p17
[47] Whole of Government, Submission No.14, p6
[48] State Council of the Rural Lands Protection Boards, Submission No.12, p4
[49] Mr Steve Orr, Transcript of Evidence, 8 August 2006, pp22-23
[50] Mr Keith Hart, Transcript of Evidence, 9 August 2006, p21

5.51 The entry criteria for this course are broader than simple academic achievement. Potential students must demonstrate an interest in rural life, an understanding of the challenges facing rural practitioners and effective oral and written communication skills. These students were selected after a questionnaire and interview process. The academic entry requirements were slightly lower than for the equivalent course at Sydney University. A recent survey of first year students in the two courses showed that more Charles Sturt University students intended to work in rural large animal practices than students at Sydney University, and for longer periods.[51] It is hoped that these intentions translate into more rural livestock veterinarians in the future.

5.52 The Committee acknowledges the need to develop and retain a workforce is common across many professional groups and commends the Department for participating in efforts to improve the level of services available to the agricultural industry. However, the Committee trusts that the Department can address the potential shortage of veterinary pathologists and agronomists within its testing facilities by positive recruitment actions.

RECOMMENDATION 9: That the Department of Primary Industries address the forthcoming shortage of veterinary pathologists and agronomists within its testing facilities by positive recruitment actions over the next five years such as offering scholarships or training existing professional staff to develop skills in pathology.

Accreditation Program for Australian Veterinarians (APAV) and Australian Veterinary Reserve

5.53 As noted above, Animal Health Australia manages a national program to accredit private sector veterinarians under the Accreditation Program for Australian Veterinarians (APAV). These vets can provide services as part of the Australian Veterinary Reserve which assists in emergency disease response and to assist public animal disease programs, such as the OJD Market Assurance Program or the Export Accreditation Scheme. This is a way of enhancing the access of the industry to professional services. Currently 256 vets hold APAV accreditation in New South Wales. Once accredited, they can undertake further training to participate in any of the specific operational programs with the approval of the Chief Veterinary Officer.[52]

5.54 Animal Health Australia noted that the New South Wales Department has been particularly active in encouraging veterinarians to join the Australian Veterinary Reserve and to participate in training activities.[53] The Department reports that of the 100 members of the Reserve nationally, 31 are in New South Wales. These members are volunteers but the Department compensates them for out of pocket expenses. The Department told the Committee that these volunteers participate in pest and disease emergency preparedness activities and explained the benefits of the Reserve for enhancing the State's preparedness:

> Involvement in these activities would typically include invitations to train with the NSW DPI First Response Team (for emergency pest and diseases). Practitioners are provided

[51] T.J.Heath, J.Hyams, J.Bagueley, K.A.Aboott 'Effect of Different Methods of Selection on the Background, Attitudes and Career Plans of First Year Veterinary Students' *Australian Veterinary Journal*, Vol 84, No.6, June 2006, pp217-222

[52] DPI, Answers to Questions on Notice, 25 October 2006, pp2-3

[53] Animal Health Australia, Submission No.13, p3

> with the opportunity to network and build relationships with Departmental staff with whom they are likely to work during a response. It also ensures that response skills are maintained and if necessary, updated and that the AVR practitioners can contribute to the development of policies and procedures that will be used during a response. Some practitioners have participated in exercises undertaken to evaluate specific aspects of NSW's response preparedness.
>
> NSW DPI has actively participated in the roll out of the AVR program and the training and assessment of each AVR member. This high level of commitment to the program has enabled NSW DPI staff to demonstrate the ways in which they could, and should become involved in NSW preparedness activities.[54]

5.55 The Committee encourages the Department to continue with these efforts to use the skills of private sector vets to strengthen the emergency response.

RECOMMENDATION 10: That the Department of Primary Industries should continue efforts to develop the skills of private sector veterinarians to increase the level of resources available in emergency responses.

TRAINING

5.56 The effectiveness of an emergency response depends on the provision of adequate training to participants in the response team. The Committee heard that, while there had been efforts to recruit and train participants, there were gaps in maintaining skills.

District Veterinarians

5.57 The Association of District Veterinarians expressed concern that the Department was not taking a leadership role in arranging this training. The submission stated that there had been no formal emergency animal disease training offered in the past two years which meant that a number of District Veterinarians had not received any training in this area.[55] Mr Keith Hart of the Association told the Committee in evidence that:

> **Mr HART:** After the 2001 FMD outbreak in the United Kingdom understandably there was a big push and a lot of things happened. Since about 2004 the impetus seems to have dropped off and that is what is concerning—that was not my comment; that is what is concerning the president of our association, who has been heavily involved as a trainer, that without the drive coming from the New South Wales DPI this will not continue to be pushed. It is a DPI responsibility primarily. We are happy to go along with it but we do not have the capacity to organise these training courses ourselves and while it was good for a while when the fear was, if you like, at a very high level as a result of what happened in the United Kingdom, it seems to have dropped off again and that is what the concern was about.[56]

5.58 Mr Steve Ottaway, Animal Health Manager of the State Council of Rural Lands Protection Boards has advised that it was the Department's responsibility to organise training:

[54] DPI, Answers to Questions on Notice, 25 October 2006, pp9-10
[55] Association of District Veterinarians of NSW, Submission No.7, p5
[56] Mr Keith Hart, Transcript of Evidence, 9 August 2006, p15

> Training in biosecurity is seen very much as a resource that the DPI brings to the partnership, particularly regional training activities through the senior regional animal health managers.[57]

5.59 The need for particular training is identified in each Board's animal health plan.[58] The State Council was able to provide figures for the amount of training undertaken by District Veterinarians over the past four years.

Year	Total Number of Training Days	Average Number of Training Days per District Veterinarian
2002	235	5.7
2003	189	4.7
2004	311	7.8
2005	327	7.4

Source: Correspondence from Steve Orr, Chief Executive, State Council of Rural Lands Protection Boards, 15 August 2006.

5.60 While this table shows that District Veterinarians have received more training in recent years than previously, these figures do not specify what type of training was undertaken. However, the table also excludes the annual five day District Veterinarians' conference which forms a valuable opportunity for these professionals to develop their skills in all areas.

5.61 The Committee notes that, during 2004-05, the Department of Primary Industries conducted workshops to educate the veterinary profession on detecting and deterring swill feeding to pigs and differentiating animal deaths due to poisonous plants from emergency animal disease incursions. Fifteen training programs for emergency response preparedness were also conducted, which was the same number as in 2003-04 and five more than in 2002-03.[59] However, the Committee did not obtain more specific information about who attended this emergency animal disease training.

5.62 The Committee acknowledges that the Department is committed to maximising the emergency preparedness of the State, however, it is vital to ensure that District Veterinarians are trained in emergency animal health as soon after recruitment as possible and that this training is refreshed as often as required.

RECOMMENDATION 11: That emergency animal health training be included in induction programs for newly recruited District Veterinarians and all District Veterinarians be encouraged to maintain their skills by attending regular refresher training as appropriate.

Industry Liaison Officers

5.63 In evidence, a witness from the Department of Primary Industries described the importance of training Industry Liaison Officers who would be contact points for local industry during animal disease emergencies:

[57] Mr Stephen Ottaway, Transcript of Evidence, 8 August 2006, p23
[58] Mr Steve Orr, Transcript of Evidence, 8 August 2006, p24
[59] DPI, *Annual Report 2004-05*, p36, p38

> **Mr EGGLESTON:** When an actual exercise or real thing is on we will ensure that there is a liaison officer there from the New South Wales Farmers' Association who can provide input as to how the operation is running and provide input back to his own organisation on that. To that extent, we have trained a number of liaison officers so that they are in a position that they can fulfil that role. That is one thing we are quite proud of because we are a long way in front of some of the other States in doing that. We saw it as essential if we want their involvement that they know what is going on and understand what we are doing.[60]

5.64 In addition, the NSW Farmers' Association submission highlighted the need for ongoing training for these officers. The Association has encouraged its members to participate in training offered by both the Department of Primary Industries and Animal Health Australia. It considers that refresher training is helpful for maintaining enthusiasm amongst these accredited officers and for advising of lessons learnt from any outbreaks. The Association considered the Department of Primary Industries should provide such training in the absence of efforts by Animal Health Australia.[61]

5.65 The Committee commends the Department for its efforts in recruiting liaison officers. It considers that it is of vital importance to ensure that these ILOs are trained appropriately and that regular contact with them is maintained to support them and to encourage their continued participation.

RECOMMENDATION 12: That the Department of Primary Industries be conscious of its responsibilities in maintaining the continued enthusiasm of Industry Liaison Officers and offer training and refresher training as required.

INFORMATION SYSTEMS

5.66 An essential tool for developing a risk assessment process is readily available high quality information about the prevalence of diseases and pests. Information systems supporting surveillance activities are crucial. During an emergency response this is even more important so that reliable current information about the location and prevalence of an outbreak can be monitored and updated. Daily activities, such as response actions, need to be entered so that timely reports can be produced. There are both technical and resource aspects to ensuring that these systems are in place.

Animal Health

5.67 The Performance Audit Report found that the information systems for managing the Mangrove Mountain outbreak of Newcastle Disease were inadequate. The Audit found that the Department of Agriculture did not use the national Animal Health Emergency Information System (ANEMIS) during the outbreak because it was not compatible with other systems in the Department and because it was thought to be outdated. The alternative system used was adequate for day to day management but could not assist in planning by linking activities to trend information. The Audit attributed these problems to poor and slow entry of data. This led to the other management problems of poor estimates of the costs of activities and lack of knowledge about the disposal of animals.[62]

[60] Mr Graeme Eggleston, Transcript of Evidence, 8 August 2006, p17
[61] NSW Farmers' Association, Submission No.4, p5
[62] Audit Office of New South Wales, 2002, *op cit*, p51

5.68 In 2002, the ANEMIS was under review.[63] The Department was also working on ways to integrate its existing range of regulatory systems and to introduce digital mapping by on-line access to the rural property register. The Performance Audit considered that surveillance would also be improved when the Rural Lands Protection Boards introduced a disease recording system.[64]

5.69 The Association of District Veterinarians submission to this inquiry stated that that:

> We still do not have a standardized, fully functional, and suitable disease recording database. Disease investigation without a state-wide database program is not surveillance.[65]

5.70 Mr Keith Hart, of the Association, indicated that the upgrading of systems had been long and difficult:

> **Mr HART:** It has taken a long time. There are arguments between State Council and DPI about whose system will be implemented. We have heard it all before. I will believe it when I see it. IT is a very frustrating area. I do not understand it. Our needs are simple. We have been asking for them for years and they have not been delivered. We keep on getting told it is just around the corner and then you hear that the IT manager of State Council has left or been sacked and it is put back for another few months. So, it is an ongoing frustration.[66]

5.71 The Committee acknowledges that developing dedicated systems is a significant task. An upgraded version of the ANEMIS system is still in use. It is designed to store and retrieve information at Local Disease Control Centres and to generate reports for State Disease Control Headquarters.[67] The Department of Primary Industries is working with other levels of government on a national package of IT systems called the Biosecurity, Surveillance, Incident Response and Tracing application (BIOSIRT). By mid-2007, this should replace ANEMIS with a comprehensive animal, aquatic system and plant disease management system. Within a further year, a national program will replace the current Resource Management Package which coordinates resources including staff and vehicles in an emergency situation.[68] Mr Doug Hocking from the Department of Primary Industries explained the progress that has been made on implementing the new national systems:

> **Mr HOCKING:** When I came into this job as executive director in February, and I would have to say I saw it mainly as a regulatory job, but I spent more time on IT issues that I have on regulatory matters. I do not say that lightly. BIOSIRT, Front gate, PIC are all acronyms that the IT world use in describing a paperless system of managing exotic pest diseases both in peacetime and wartime. By peacetime I mean surveillance and by wartime I mean when we are responding to emergency disease. We are getting there. We are part of a national response. There is a long way to go. The national response is encapsulated in BIOSIRT. It is standardising Commonwealth and States across Australia, and that is absolutely critical to managing exotic pest diseases and also to demonstrate to our trading partners that we have the capacity to respond, identify and trace.
>
> **Mr RICHARD TORBAY:** Do you have the timing of how that has happened?

[63] *ibid., p*50
[64] *ibid.,* p45
[65] Association of District Veterinarians of NSW, Submission No.7, p4
[66] Transcript of Evidence, 9 August 2006, p17
[67] Animal Health Australia, *ANEMIS Emergency Manual Tool Interim Draft Manual 2004*, p4
[68] Whole of Government, Submission No.14, pp8-9

> **Mr HOCKING:** I am chairman of the national BIOSIRT steering committee. Our design phase will be finished in December. We are then going back to the Primary Industries Ministerial Council [PIMIC] with a report on progress and are looking to see, dare I say, what other resources might be required. It was agreed to put BIOSIRT in place two years ago. The budgets were done then, so we are looking to the future. So far we are going quite well, surprisingly, but when you are dealing with IT, it is not without its issues.[69]

5.72 The Committee concludes that this issue is close to being resolved and depends on development of national systems.

5.73 The processes for developing the National Livestock Identification Scheme and tracing livestock movements will be discussed in Chapter 6.

GAPS IN SURVEILLANCE

5.74 During this inquiry, the Committee heard that are some weaknesses in the current surveillance system which may lead to disease incursions not being detected in time to prevent major outbreaks. These weaknesses include a gap in enforcement of the feeding of swill to pigs, lack of interaction between government agencies and the pig and poultry industries, inadequate knowledge about disease risks among small producers and potential weaknesses in surveillance of wildlife populations.

Swill feeding

5.75 One of the main ways for porcine diseases such as classical swine fever, Foot and Mouth Disease and post weaning multisystemic wasting syndrome to be transmitted is by feeding pigs with swill. Swill refers to food or waste that contains untreated animal products and can include abattoir by-products or waste human food.[70] The 2001 outbreak of Foot and Mouth Disease in the United Kingdom was traced to a piggery illegally feeding pigs swill.[71] Swill feeding is more of a risk factor for an exotic disease entering Australia for producers near large urban areas where there is an increased likelihood of swill containing illegally imported foodstuffs containing meat products.[72]

5.76 The Performance Audit Report noted that, while the feeding of swill was banned under the *Stock Diseases Act 1923*, there was a gap in the powers of inspectors from NSW Agriculture or Local Government to inspect the use of food from restaurants in swill feeding. It recommended that this gap be filled by regulation but did not specify which type of inspectors should have this power and exactly what this would involve.[73]

5.77 The Whole of Government submission to this inquiry argued that this regulatory gap had been filled by clause 60 of the *Stock Diseases Regulation 2004* which prescribes certain foodstuffs as prohibited for pigs.[74] This regulation provides a comprehensive list of prohibited substances, including all animal products and excreta of mammals

[69] Transcript of Evidence, 8 August 2006, p7
[70] Audit Office of New South Wales, 2002, *op cit.,* p44
[71] N. Walsh, R. Petersen and K. Hart, *Executive Summary Surveillance for Emergency Disease and Associated Risk Factors in Pigs in the Sydney Basin 2002-*2003, NSW Agriculture and Moss Vale RLPB, tabled by Keith Hart, 9 August 2006, p1
[72] N. Schembri, K.Hart, R.Petersen and R.Whittington, "Assessment of the management practices facilitating the establishment and spread of exotic diseases of pigs in the Sydney Region", Australian Veterinary Journal, Vol 84, No.10, October 2006, pp341-348, p341
[73] *ibid.,* p44, p8
[74] Whole of Government, Submission No.14, p9

or birds. It also includes products that would otherwise be acceptable except that they may have come into contact with banned material. Some waste foods, including baked goods, are acceptable if they do not contain meat. Heat treated dry meal based on animal products is acceptable, as is manufactured dry dog and cat food.[75] Mr Keith Hart of the Association of District Veterinarians informed the Committee that this regulatory change was required to fix loopholes in earlier definitions of swill. For instance, acceptable bakery products previously included meat pies and pizza slices containing meat which would clearly have a high risk of transmitting exotic diseases.[76]

5.78 This new regulation does not address the issue of inspectors. When asked about the powers in the public hearings, representatives of the Department of Primary Industries stated that there were clear powers of inspection[77] and later provided details of the way in which these powers are enforced:

> Sub-section 7(1)(a) of the Act provides inspectors with the power to enter any building (including restaurants) to enforce the provisions of the Act or Regulations, and other powers provided in the Act allow for investigations of offences.
>
> In practice, NSW DPI regulatory officers check on selected food outlets and other sources of food wastes for the purposes of:
>
> identifying sources of swill;
>
> tracing and collecting evidence against persons who may be feeding swill; and
>
> providing advice on acceptable waste food disposal options.
>
> NSW DPI also investigates any allegations of prohibited food waste being fed to pigs, whatever the source of those food wastes.[78]

5.79 The Committee is satisfied that the Department of Primary Industries inspectors have adequate powers to investigate and prosecute individuals who may be feeding pigs with inappropriate substances. However, there remains a gap in that it is not a specific offence to supply prohibited products to someone else to feed to pigs. This gap at the other end of the supply chain is of concern both to the NSW Farmers' Association and the District Veterinarians. As Mr Keith Hart of the Association of District Veterinarians pointed out, the supply of waste food from restaurants to pig farmers is not illegal and it would be more effective to regulate both ends of the supply chain rather than simply the on-farm use of swill.[79]

5.80 Recent surveillance work shows that the New South Wales pig industry includes a significant number of peri-urban producers, many from non-English speaking backgrounds who may keep only a small number of animals for non-commercial use. These producers may not be visible to agricultural inspectors because their landholdings are too small to be rated by Rural Land Protection Boards.[80]

[75] Cl 60 *Stock Diseases Regulation 2004*
[76] Correspondence from Keith Hart 21 August 2006, p1
[77] Transcript of Evidence, 8 August 2006, p8
[78] DPI, Answers to Questions on Notice, 25 October 2006, p2
[79] Correspondence from Keith Hart, 21 August 2006, p2
[80] N. Walsh et al *op cit*; NSW Farmers' Association, Submission No. 4, Correspondence from Keith Hart, 21 August 2006, p2

5.81 This surveillance report found that two producers were feeding pigs meat products,[81] and that awareness of illegal feeding practices amongst backyard producers was low. These producers also had limited knowledge of the symptoms of exotic diseases.[82] The NSW Farmers' Association was concerned these small producers were a real disease threat and could endanger the pig industry as a whole.[83]

5.82 Recommendations of the surveillance report included expanding information campaigns and strengthening monitoring of properties. It also recommended legislative change:

> To make it illegal to sell or provide waste food products that carry an exotic disease risk (swill) to pig owners in the knowledge that the products will be fed to pigs.[84]

5.83 The Committee notes that efforts have been made to improve knowledge of the issue. Mr Steve Ottaway, Animal Health Manager for the State Council of Rural Lands Protection Boards, mentioned that the Councils has conducted pilot workshops on how to prevent swill feeding and planned further workshops throughout the State.[85] The Council's *2004 Annual Report* noted that Boards were addressing the issue by randomly inspecting piggeries to ensure the practice was not occurring and providing advice to producers about the dangers of the practice.[86]

5.84 However, in view of the potentially serious consequences of the issue and the difficulty of educating small producers, stronger powers targeting the supply of swill may be warranted. The question then is whether it is a matter for local government inspectors or agricultural inspectors.

5.85 In a submission to this inquiry, the Hon Kerry Hickey MP, Minister for Local Government, noted that, while some local councils choose to inspect food premises, the purpose of these inspections is to ensure that food is safe for human consumption. This is a not a universal practice across the State. Inspectors do not investigate the destination of restaurant waste. Local councils also provide waste management services but the Minister was opposed to prescribing the way in which councils conducted these services and to any requirement imposing resource burdens on local government.[87] Given that local government inspectors do not operate in a consistent way throughout the State, it would be unduly burdensome to make the inspection of swill a duty of local government inspectors. As the Audit Report's recommendation was about animal health rather than human food hygiene, it seems clear that inspection of swill feeding is more appropriately the responsibility of the Department of Primary Industries inspectors.

RECOMMENDATION 13: That the Minister for Primary Industries consider amending the *Stock Diseases Act 1923* to ban the supply of waste swill to pig owners by food retailing businesses such as bakeries, restaurants and supermarkets.

[81] N. Schembri et al *op.cit.*, p341
[82] N. Walsh et al, *op cit.*, p2
[83] NSW Farmers' Association, Submission No.4, p4
[84] *ibid.,* p2
[85] Transcript of Evidence, 8 August 2006, p23
[86] State Council of Rural Lands Protection Boards *2004 Annual Report*, p14
[87] Minister for Local Government, Submission No.8, pp1-2

Pig Industry

5.86 The NSW Farmers' Association considers that there should be more public service animal health workers with expertise in pig health. The submission notes that pig veterinary services are provided by the private sector but the amount of technical advice these practitioners seek from public sector experts suggests there is a shortage of expertise in the field. The Association claims that private sector practitioners have no incentives to attend training courses to develop knowledge or participate in public discussions on pig health. This is reducing the level of progress in the area. The industry regards Rural Lands Protection Board staff as regulators and is reluctant to use their services. The submission claims there is some anecdotal evidence that producers fearing regulation pressure private consultants to withhold sampling. [88] If these practices are widespread, this could erode the effectiveness of disease surveillance in the industry significantly.

5.87 Mr Keith Hart of the Association of District Veterinarians provided the following information about the lack of government involvement in the pig industry:

> **Ms KRISTINA KENEALLY:** The Committee has been told that the pig industry is a risk because private sector vets lack training in emerging diseases and in biosecurity, and we touched on that as well. Firstly, do you agree with that view and, to follow up, are private sector vets used in this industry in particular?
>
> **Mr HART:** I am really pleased you asked that question. That was raised in the New South Wales Farmers submission, and they really know their stuff in this area. Their assertion is that district veterinarians in general—not all, but most district veterinarians—do not have a high degree of understanding of the pig industry as a whole. Private vets are generally used in the pig industry and there is a glaring omission in that—I am almost certain of this—the DPI no longer has a specialist pig veterinarian to provide the interface between the industry and the DPI. It does have a specialist veterinarian—he is a good mate of mine, Dr George Arzey—in relation to poultry, which has a very similar structure to the pig industry, where it is intensive. They tend to employ their own vets. There is a problem, unfortunately, and I think New South Wales Farmers would acknowledge this, with regulatory capture, where the veterinarians working with these two industries are working for their bosses primarily and there are times when information on a disease outbreak, there is a lot of pressure for them to keep it in-house. I do not think that is an outrageous statement. I have heard it many times before by people who really know the industry.
>
> So, the DPI is failing in not having a specialist—they used to have a position but I believe the position has gone—pig veterinarian to provide the liaison. We cannot provide it in the rural lands protection boards. The pig industry is a fairly closed organisation and you need someone who really knows it and who can provide that interface to encourage them to work with government on disease problems that are a real concern.[89]

5.88 When asked why this was the case, Mr Hart stated:

> **Mr HART: ...**Veterinarians, as a rule, do not know a heck of a lot about pigs, although I think Sydney University is trying to turn that around. In some districts you will find there is a concentration of pigs, and veterinarians in those areas have expertise. In most of the districts in New South Wales there are very few pigs. For example, pigs might be 1 per cent of my time. So, you tend not to get pig experts in those areas. It is like horse

[88] New South Wales Farmers' Association, Submission No.4, pp4-5
[89] Transcript of Evidence, 9 August 2006, p18

> medicine in veterinary science. It is a specialist job these days. Pigs are a specialist job; chooks are a specialist job. They tend to need specialists to be able to handle them. Most district veterinarians like me tend to be generalists, we specialise in—well, I have just said specialise. I suppose we are specialists in our field—cattle, sheep, goats, alpacas, pigs to some extent but only in relation to the really important diseases that worry us, like foot and mouth disease or something like that. If I saw a disease that did not look like an exotic disease, I would quickly get on the phone to call in a consultant or someone from university who had the expertise to help out.[90]

5.89 In response to a question on notice, the Department stated that there is no specialist liaison officer for the pig industry but through the recently established Centre for Animal and Plant Biosecurity at Camden, the Department had access to the services of the University of Sydney's specialist pig lecturer.[91]

RECOMMENDATION 14: That the Department of Primary Industries should endeavour to improve its knowledge and skills base in the pig industry by recruiting a specialist pig industry liaison officer.

Poultry Industry.

5.90 District Veterinarians have no coverage of the poultry industry in the Boards' animal health programs because poultry are not included in the definition of "stock" in the *Rural Lands Protection Act 1998*. This means that poultry producers do not pay animal health rates to Boards. However poultry are included as stock in the *Stock Diseases* and the *Exotic Diseases Acts* and, therefore, poultry diseases can be part of disease control programs and emergency disease responses.

5.91 As noted above, there is a specialist poultry veterinarian with the Department of Primary Industries. The Department advises that this officer:

> provides advice to both industry and Government on matters of concern for the industry. Twice yearly Industry Poultry Liaison Meetings are held which provide a unique forum for formal and informal information flow in both directions. The relationship of this specialist position also provides Government with a means of monitoring animal health issues in the industry.[92]

5.92 The Committee considers that this position is of importance to maintain an effective relationship with the industry about poultry health issues.

RECOMMENDATION 15: That the Department of Primary Industries should ensure that it retains the services of a specialist poultry industry liaison officer in the future.

Small Producers

5.93 The pig industry surveillance project found that half of the non-commercial pig vendors surveyed had a poor understanding of exotic diseases.[93] This issue is not unique to New South Wales. Recent reports in Western Australia suggest that unskilled hobby farmers not securing their animals were responsible for spreading

[90] Transcript of Evidence, 9 August 2006, pp18-19
[91] DPI, Answers to Questions on Notice, 25 October 2006, p9
[92] *ibid.*
[93] N.Schembri et al, p346

footrot to other properties.[94] Small landholders who are not agricultural professionals are less likely to be experts in identifying disease and probably of greater risk of not seeking treatment for an incursion of disease or pest.

5.94 A witness from the Department of Primary Industries described the efforts that were underway to reach out to these groups:

> **Mr STEVE WHAN:** A number of submissions we have received comment on hobby farmers and smaller landholders, and suggest that they are less aware of their responsibilities with pest and animal diseases. There is certainly some reluctance from some of those people to contribute to things like RLPBs. What is the department's experience of this, and what efforts are you making to make those hobby farmers more aware of their responsibilities?
>
> **Mr HOCKING:** I suppose there are two main areas. In our division of agriculture and fisheries we have a network of horticulturalists, livestock offices, agronomists and a public inquiry service and a disease hotline which also operate. We use those networks to make people aware of their responsibilities in managing their livestock and plants. However, we are not out there [solely to raise the] public profile on exotic pests and diseases. Secondly, the Commonwealth, in concert with the States, particularly in the Sydney Basin, has had a program of publicity with the ethnic communities. With plants it was run through Sydney Markets at Flemington. In animals there is a program that is in place, and we are part of that. That has been negotiated with the Commonwealth. I guess it is on a reporting basis that we often find these things when a problem occurs.[95]

5.95 The State Council of Rural Lands Protection Boards also described the difficulties posed by small landholders who ran a small number of animals. While they still pose a disease risk, they are not well informed:

> **Mr ORR:** That is certainly a very real issue for rural lands protection boards. You have seen a lot of changes in the demography and the like and a lot of subdivision, particularly in the coastal and larger regional centres. The effect that has had is the breaking up of larger properties while at the same time there is a desire by many people to have their small block and run a few horses, sheep or cattle. The boards have the view that we need to rate down a bit more as a consequence of the subdivision and also as a consequence of the fact that risks are posed by that, by the people keeping pigs or whatever in their backyard. Our view is that there are certainly risks there. Those risks need to be managed.
>
> At the same time we absolutely acknowledge the need to communicate with those people, and that is a real challenge for boards. There are a lot of them and they do not particularly like paying rates at any time. They question the value they are receiving from those rates; they expect to receive some services back. One thing about our organisation is that probably the less you see of us the better in terms of particular problems which people deal with. It is certainly a challenge. I know boards have tried in many ways to communicate with those people, to inform them of their obligations, to try to respond to their particular needs. Their needs are quite different from the more commercial landholders in running their small area of land. From our perspective there are certainly risks that need to be managed. Diseases—and rabbits—do not stop at boundary fences.
>
> Those things need to be managed and costs are incurred, hence the need to rate them. Certainly there are changes in demography and the like which need to be acknowledged.

[94] "Hobby farms blamed for spreading sheep disease" Farmonline 13 October 2006, available at http:www.farmonline.com.au/news_daily.asp?ag_id=379556 (accessed 16 October 2006)
[95] Transcript of Evidence, 8 August 2006, p15

> We need to do a better job in communicating with those people about their obligations as landholders. There are obligations when they move onto land, there is their responsibility to manage certain things. At the same time we need to provide them with things that are more relevant to their needs. Some boards are doing that by running small farm field days and the like, which have been very successful. It is certainly something we need to continually work on.[96]

5.96 The Committee notes that for the past five years, Animal Health Australia has managed a national program for raising awareness of emergency animal diseases called the Protect Australian Livestock Campaign (PALC). The campaign promotes a national emergency disease hotline and encourages producers to "Look. Check. Ask a vet." In cooperation with state agencies and industry organisations, AHA undertakes a media program, provides awareness and educational materials and encourages the participation of industry in a range of related initiatives.[97] The Committee notes that in mid-November 2006, a two day workshop was held near Richmond for niche farmers to encourage small producers to develop biosecurity plans. Officers of the Department and AHA were involved.[98]

5.97 The Committee appreciates that it can be difficult to communicate with a diverse group of non-professional landholders but considers that their lack of knowledge could contribute to the seriousness of a pest or disease outbreak and undermine the efforts of other producers.

RECOMMENDATION 16: That the Department of Primary Industries and Rural Lands Protection Boards employ outreach activities to alert these small producers to their responsibilities and improve their awareness of animal and plant pests and diseases.

Wildlife

5.98 One of the most likely ways that dangerous strains of avian influenza may enter Australia is through migrating flocks of wild birds. There are other diseases transmissible from wildlife to stock animals to people, such as Menangle disease, Hendra virus and Lyssavirus which are all transmitted by bats.

5.99 The Department of Conservation conducts wildlife surveillance in national parks but this is generally only passive surveillance. Specific active surveillance activities in recent years have been testing stranded whales and dolphins where there are concerns about the cause of death, testing quoll scat sample for hydatids as part of a quoll research program and testing mammal scats in Kosciusko National Park for cryptosporidium and other pathogens. The Department also assists the Department of Primary Industries and other scientific investigations by providing samples. For instance, it provided feral dogs and pigs to the Department of Primary Industries to be tested. Insects were provided to NSW Health for testing of viruses. Flying foxes and bats have been tested for Lyssavirus.[99]

[96] Transcript of Evidence, 8 August 2006, p25

[97] Available at http://www.animalhealthaustralia.com.au/aahc/programs/comms/palc/palc_home.cfm (accessed 6 November 2006)

[98] "Disease vigilance needed from small area farmers" Farmonline, available at http://www.farmonline.com.au/news_daily.asp?ag_id=38598 (accessed 9 November 2006)

[99] Correspondence from the Minister for the Environment, Hon Bob Debus MP, 6 November 2006

5.100 A submission from the Department of Conservation noted that, despite recent concerted efforts to improve the planning for responses to outbreaks of animal diseases to take account of potential environmental and conservation impacts, there were still gaps in the capacity surveillance of wildlife. For instance, the Department would only learn of a potential outbreak when dead or injured wild birds are reported to volunteer groups or the Department. The submission also indicated concerns about the appropriate role of the Department of Primary Industries in investigating diseases of non-livestock animals. This was being evaluated at the time of the submission.[100]

5.101 The Committee sought information from the Department of Primary Industries about its efforts to monitor the presence of diseases in wildlife populations. It advised that the Department is a partner in the national Australian Wildlife Health Network. This network is coordinated by the Commonwealth Department of Agriculture, Fisheries and Forestry as a way for public and private sector veterinarians to respond to potential disease outbreaks quickly. The Department provides regular reports to the network and operates its own Emergency Disease Hotline which follows up reports of disease in wildlife as well as production animals.

5.102 A key active surveillance project is investigating ways of detecting avian influenza in wild birds in order to develop targeted surveillance strategies to minimise the risk of an outbreak. The work assesses relative risk factors such as the species most likely to be affected, seasonal factors and how close commercial poultry producers are to wild bird populations.

5.103 The Department regularly conducts exotic disease exclusions of wildlife and performs mortality investigation of bats for Lyssavirus. In 2002-03 it surveyed the prevalence of Johne's Disease in deer in the Royal National Park and, in 2004-05, tested feral pigs near Dubbo for leptospirosis. [101]

5.104 Recently, the Department of Conservation cooperated with the Department of Primary Industries and other wildlife groups in investigating the causes of unusual wild bird illness and deaths in coastal areas between February and May 2006. Most of the birds were magpies but other species were affected to a lesser extent. This investigation could not identify the cause of the diseases but was able to rule out the presence of avian influenza. This outbreak seems to have abated since May.[102]

5.105 Given the high level of public concern about possible disease incursions, it is appropriate that these activities are undertaken in the context of managing the risks of disease outbreaks.

Conclusion

5.106 This Chapter has shown that active and passive surveillance activities are underway to enable disease and pest outbreaks to be identified quickly to minimise their impacts.

5.107 Some areas need of enhancement, including addressing potential shortfalls in testing caused by charging producers for some tests. The long term availability of qualified professional staff is also crucial to a robust surveillance system and these staff need

[100] Minister for the Environment, Submission No.2, p4
[101] DPI, Answers to Questions on Notice 25 October 2006, pp1-2
[102] *ibid.*; Correspondence from the Minister for the Environment, Hon Bob Debus MP, 6 November 2006, p2

regular targeted training. Some gaps in the surveillance system can be improved by strengthening compliance actions and building stronger links with producers to improve their knowledge of pest and disease risks.

Chapter Six - Animal Tracing - NLIS

THE NEED TO TRACE ANIMALS

6.1 Responses to outbreaks of emergency diseases are more effective if the possibly infected animals can be located, should they have moved from the sites of disease outbreaks, such as through saleyards. Some diseases may be found at abattoirs and it is important to know where infected animals have come from in order to identify the original site of the outbreak. These issues were significant during the early stages of the United Kingdom's 2001 outbreak of Foot and Mouth Disease (FMD). FMD is extremely contagious and infected animals had spread through markets to 16 counties and three other countries before the disease was reported. Unfortunately, more than 40 per cent of animals could not be traced, which hampered the response effort considerably.[1]

6.2 For these reasons, the Performance Audit Report recommended that New South Wales "continue to support the development of national livestock identification schemes".[2] This Chapter examines progress of these national schemes since 2002.

NATIONAL LIVESTOCK IDENTIFICATION SCHEME (NLIS)

6.3 Australia has long used identification systems of branding and tagging of many stock animals to protect producers' property rights and as part of its quality assurance program for markets. A new system of electronically readable tags tied to a national database called the National Livestock Identification Scheme (NLIS) has been implemented for cattle. A similar system is currently being introduced for sheep. Discussions are also underway about introducing a system for pigs. The NLIS is designed to provide whole of life traceability of animals in order to maintain consumer confidence in meat safety and the confidence of domestic and international markets.[3]

6.4 The Committee heard that, while the new system should help with tracing animal movements to control disease, there are some problems with the introduction, such as data not being up to date and inaccurate reading devices in abattoirs and saleyards.

Cattle NLIS

6.5 It has been compulsory since 1 January 2005 for New South Wales cattle being transferred from properties to have electronically readable tags. This is considerably later than the implementation date of 2003 indicated in the Performance Audit Report.[4] Since 1 July 2006, tail tags have no longer been required for cattle in New South Wales in most circumstances.

6.6 The Rural Lands Protection Boards are implementing the system and maintaining a register of animal identifiers. Farmers pay for the electronic ear tags or a "rumen bolus" which is a device inserted under the skin. The Department of Primary

[1] Audit Office of New South Wales, 2002, *Managing Animal Disease Emergencies*, p55; National Audit Office *Foot and Mouth Disease: Applying the Lessons* 2005, p2
[2] Audit Office of New South Wales, 2002, *op cit*, p7
[3] DPI, available at http://www.agric.nsw.gov.au/reader/nlis-cattle/questions-answers-nlis-nsw.htm#12 (accessed 6 November 2006)
[4] Audit Office of New South Wales, 2002, *op cit*, p43

Industries advised in December 2005 that the ear tags cost around $2.60 each but the price varies depending on the supplier. Rumen boluses are slightly dearer.[5] In August 2006, Mr John Carter indicated that the price was around $3.50 each.[6] This cost may be significant when implemented on lower value animal such as sheep.

6.7 The cattle industry, in particular, has been concerned about the system. A submission from Mr John Carter of the Kosciusko Branch of the Australian Beef Association considered that the introduction of the NLIS had been reckless. The Association opposed to the removal of the highly effective existing systems of tail tags and vendor declarations because the database was not accurately recording cattle sales.[7] In a hearing before the Committee, he argued:

> **Mr CARTER:** …I am tendering one small example of a producer who has had three sales and he is currently averaging less than 50 per cent of his sales being correctly recorded. That is clearly impossible. We had a very good tail tag system. It was the only mandatory trace-back system in the world. In other words, you put a tail tag on the beast when it was being sold and then you filled out what they called a national vendor declaration, swearing that these animals were as described. This system was working very well. It had the respect—indeed, more than the respect; it had the admiration—of a lot of people around the world. America has got nothing, South America is experimenting but it has nothing mandatory anywhere, and Europe is experimenting and having real trouble. But they are very intensive and if they cannot make it work we have got no show here. But a lot of people got carried away and we have a day of reckoning coming.
>
> This is a classic example of a producer who has sold 100-odd cattle. He said, "I sold 27 cattle last Monday. A week after the sale the database is telling me that I sold nine. That was 30 per cent correct. It was telling me that I consigned four direct to slaughter within two days of that sale, which I did not. From what I can see there is failure to read NLIS tags in saleyards." Only 44 out of 89 transactions were correctly read over his three sales. This is happening all over Australia. It is not just in Wagga or Roma; it is happening from Tasmania to Cape York and right across to West Australia. But your brief is New South Wales. My initial estimate was that if this was seriously policed and regulated it would cost about $37 a head. I was ridiculed at the time but I think I am probably going to be proven to be conservative. This is a very serious amount of money for something that is not working.[8]

6.8 Mr Carter that it was impractical to use the system when moving very large numbers of cattle, as happens regularly in large cattle properties:

> **Mr CARTER:** The idea was that every time an animal moved from one place to another it would be recorded on the database. That is just not happening. People are moving cattle from one property to another and there is no way they are going to be forced to put readers in and have a truck waiting. We talked to Stan Henwood, the biggest producer in New South Wales. He has 20 properties between Wagga and the Gulf. He is moving cattle all through the night and every day. They are moving on stock routes and on trailers. The idea that every time he moves them he has to read them all is just

[5] Available at http://www.agric.nsw.gov.au/reader/nlis-cattle/questions-answers-nlis-nsw.htm#12 (accessed 6 November 2006)
[6] Transcript of Evidence, 9 August 2006, p3
[7] Australian Beef Association, Submission No.9
[8] Transcript of Evidence, 9 August 2006, p3

> laughable. He explained that to the Minister but the Minister and his team did not really seem to want to hear him. It is very difficult.[9]

6.9 Mr Carter also considered that the system was impractical because the vast majority of producers were not accustomed to using computers.[10]

6.10 Mr Carter was concerned that these systems had not been shown to be effective in other countries and referred to reports in Europe and the United Kingdom.[11] Trials in six European countries completed in 2001 have shown that there are some technical difficulties with the selection of the technology. Tags tended to have higher failure rates over time and there can be interference issues with bovines already carrying a magnet, especially if it is not in a plastic cage. People inserting devices needed proper training. Portable readers showed good tolerance of distance but fixed ones were worse. However, this was a generally positive report about the effectiveness of electronic tags as a concept. It concluded that electron tags would improve livestock identification and should be introduced for cattle, buffalo, sheep and goats in the European Union.[12]

6.11 In 2005, an English trial of electronic tags in sheep found that there were some technical hurdles and recommended a phased approach to implementation. For instance, many farmers needed IT training to use the system. They were mostly able to capture data and enter it onto a farm computer but relatively few were confident at transferring to a database using the internet. ID information was readable in a farm situation but the robustness and performance of hand-held readers needed to be improved. Participants did not think it suited the farm environment. Other technical issues included batteries, noise, and interference of readers. The Report found that internet transfer from farm to database was possible but had considerable potential to fail. However, the Report also noted that existing paper systems were prone to failure, especially in periods of heavy rain.[13]

6.12 While Mr Carter was adamant that the difficulties with NLIS were not mere implementation issues,[14] the NSW Farmers' Association, on the other hand, considered that the cattle NLIS system was not suffering any systemic problems. The Association noted anecdotal evidence of "teething problems", mostly attributable to human error. The Farmers' Association was primarily concerned that the system demonstrate the benefits that were worth the costs of implementation for industry and that the State Government monitor the effectiveness of the system.[15]

6.13 Ms Regina Fogarty, Director Extensive Industries Development of the Department of Primary Industries, provided the following evidence to the Committee:

> **Ms FOGARTY:** Yes. The cattle program is now fully operational as of the beginning of this year. The sheep program is undergoing implementation, it commenced only at the start

[9] Transcript of Evidence, 9 August 2006, p7
[10] Transcript of Evidence, 8 August 2006, p2
[11] *ibid.*
[12] European Commission, *IDEA Project Final Report, a*vailable at http://idea.jrc.it/pages%20idea/trial%20report.htm (accessed 18 August 2006)
[13] Department for Environment, Food and Rural Affairs *English Pilot Trial of EID/EDT in Sheep*, 31 October 2005, pp7-11
[14] Transcript of Evidence, 8 August 2006, p8
[15] NSW Farmers' Association, Submission No.4, p6

> of the year. It is very early days and it has an introductory period of two or three years. There certainly has been some resistance to the implementation stage in the cattle industry if anyone wants to take a clear view of where the Australian and New South Wales cattle industry has come from to where it is now, and the level of acceptance by producers and all sectors of the industry, which includes saleyards, the abattoirs, the agents and the processors, all those groups have come on board and really do support the program very much now. In fact, we have had tremendous responses from producers.
>
> We have very high compliance rates. There will always be a few issues with these things. We have spoken about teething problems. The Government is very pleased with the way it has gone and it has the support from both sides of Government. It has been a very successful implementation of what was going to be a difficult program. It was never going to be simple to introduce a new requirement on producers and the other sectors to manage identification more accurately than in the past. It has been very successful.[16]

6.14 The Committee notes that in June 2006, the Commonwealth Minister for Agriculture requested PricewaterhouseCoopers conduct an audit of the accuracy of the NLIS database. This audit has been delayed by official complaints about the process and will not be completed until mid-December 2006.[17] The Committee notes that some producers are not happy with the current scheme but that there are processes underway to address the accuracy of the system.

Sheep and Goat NLIS

6.15 The NLIS for sheep and goats is at a much earlier stage of implementation than the cattle scheme. Visually readable ear tags with a property identification code became compulsory at the beginning of 2006. Stock movements and transactions also require movement documents.[18] The system differs from the cattle NLIS by not being linked to a central database and the tags carry flock rather than individual identification.

6.16 The NSW Farmers' Association had considerable concerns about the effectiveness and the costs for producers of this scheme. It saw the role of State Government as providing technical advice on the least-cost form of regulation to implement policy objectives rather than determining regulation on political grounds. The Association was concerned that producers were not complying with the scheme and requested that the State Government assess the level of compliance. It also noted that New South Wales had not made any financial contribution to the implementation of the scheme although the Commonwealth Government had contributed $2.5 million, compared to a cost to producers of $10 million. The submission requested that the State fund efforts to educate producers about the scheme to improve compliance.[19]

6.17 The Association also argued that there was a much lower biosecurity threat from sheep going straight to slaughter from their property of origin, compared to sheep sold

[16] Transcript of Evidence, 8 August 2006, p9

[17] Farmonline "NLIS Audit delayed six weeks due to complaint" available at http://www.farmonline.com.au/news_daily.asp?ag_id=38398 (accessed 1 November 2006)

[18] Available at http://www.agric.nsw.gov.au/reader/nlis-sheep-goats/sheep-goats-nlis.htm (accessed 6 November 2006)

[19] NSW Farmers' Association, Submission No.4, pp6-7. The Committee notes that from 2002 onwards the New South Wales Government has provided the Department of Primary Industries and the Rural Lands Protection Boards with $8.9 million over four years to implement the infrastructure for the identification schemes and to establish a new IT system to trace livestock movements (Whole of Government, Submission No.14, p6)

between properties, either privately or through saleyards.[20] The English Electronic ID Trial also considered this issue but found that, while the animal health implications were lower for such direct to slaughter animals, traceability would still be helpful in tracking any threats to human health. However the Report made no recommendation about the best approach.[21]

6.18 These issues will be addressed through the national policy development process. The Committee notes that in 2007 the Commonwealth Department will be examining the effectiveness of the system, including the exemptions requested by the industry.[22] The Farmers' Association was supportive of this review.[23]

Pig NLIS

6.19 There is no pig NLIS yet. According to Ms Regina Fogarty from the Department of Primary Industries, discussion is underway. The nature of this industry is very different to cattle and sheep:

> **Ms FOGARTY:** The pig industry has some advantages in that there is not as much animal trading compared with other animal industries by the nature of the industry. Most animals are sold and go direct to slaughter and that reduces a lot of complications with [stock] sales and breeder sales. The pig industry does not have as much work to do in many ways as the other industries. It is also smaller with fewer players. While it has not really got underway yet it has done a lot of planning and has a plan to put in place, a similar level of reporting that is required by the other two major livestock industries. The program has been going on since the mid-1990s in planning and development. Australia is getting there and New South Wales is leading in most areas in that program.[24]

6.20 The Farmers' Association considered that 95 per cent of the pig industry was low risk because only 5 per cent of animals were sold at saleyards. However, it was extremely concerned that the smaller pig producers using informal sales processes posed significant risks to the integrity of an any future NLIS and to biosecurity. The Association argued that the cost of a new system to larger producers would be outweighed by any possible disease control benefit to them. It urged the Department to improve the disease knowledge of these producers, pursue licensing of all pig keepers and work to encourage sales only at saleyards.[25]

6.21 This are currently two gaps in the current animal identification requirements even at official sales. A pig weighing more than 25kg presented for sale is required to have a "swine brand" ear tattoo with either its owner's details or a temporary "Crown Brand" provided by an RLPB which records the vendor's details. Smaller beasts are not required to have a brand when presented for sale or slaughter for animal welfare reasons.[26] A recent survey of pig sales over twelve months in the Sydney basin found that, while 95 per cent of vendors could be identified, only 40 per cent of purchasers were identifiable and many sales were in cash which meant the vendors' details were

[20] NSW Farmers' Association, Submission No.4, p7
[21] Department for Environment, Food and Rural Affairs *English Pilot Trial of EID/EDT in Sheep*, 31 October 2005, pp146-147
[22] Ms Regina Fogarty, Transcript of Evidence, 8 August 2006, p9
[23] NSW Farmers' Association, Submission No.4, p7
[24] Transcript of Evidence, 8 August 2006, p9
[25] NSW Farmers' Association, Submission No.4, p8
[26] N. Schembrek et al, *op cit.*, p343

not recorded.[27] These factors pose serious limitations to the traceability of animals in the event of an emergency disease outbreak.

6.22 The Committee trusts that processes to develop an NLIS for the pig industry considers ways to improve the current issues with animal traceability within the industry and demonstrates that the benefits of any NLIS would outweigh the costs.

Conclusion

6.23 The Committee considers that the NLIS is a valuable tool for tracing animals and of vital assistance in the event of a disease incursion. It notes that processes are underway at the national level to address industry concerns about aspects of the system.

[27] N. Schembrek et al, *op cit.,* p341

Chapter Seven - Resources for Managing Animal and Plant Diseases

7.1 This Chapter discusses the arrangements between industry and Government in relation to managing emergency plant and animal disease outbreaks and addresses any concerns about these issues raised during the inquiry.

7.2 It also examines the efficiency of the arrangements for the State Government to provide its share of resources and how the potential impacts of unexpected expenses are minimised.

7.3 Finally, it discusses the process for providing government and industry contributions to manage non-emergency diseases and pests.

ROLES OF INDUSTRY AND GOVERNMENT

7.4 Response activities can be expensive and the costs vary depending on the extent of the outbreak and how quickly the response is activated. For instance, the 2004-05 outbreak of plague locusts in New South Wales required $21 million in control activities, well above the amount in the pest insect control fund at the time.[1] The cost of controlling the outbreak of virulent Newcastle Disease at Mangrove Mountain in 1999 was $26.4 million.[2] In 2002, the Productivity Commission estimated that the control and compensation costs for an outbreak of Foot and Mouth Disease in Australia would range from around $30 million for a three month outbreak up to $450 million if the outbreak lasted for a year.[3]

Mangrove Mountain

7.5 The Performance Audit noted that there were significant difficulties with the emergency funding arrangements during the outbreak of virulent Newcastle disease at Mangrove Mountain in chickens in 1999. At the time of the outbreak, Newcastle Disease was one of only twelve diseases included in a national agreement under which Commonwealth, State and Territory governments would contribute to treat an outbreak in proportion to the share of the relevant animal industry.[4]

7.6 Four months after the outbreak commenced, other governments threatened to withdraw their contributions because of concerns about how New South Wales had responded to the crisis. It took five days to commence slaughtering infected birds. This activity should have started sooner in order to contain the disease. New South Wales had decided unilaterally that that the level of biosecurity on poultry farms was low and served notices on farms affected by the crisis to remove litter and disinfect the properties at their own cost. This was inconsistent with the practice in previous outbreaks where the State had contributed funds for such activities. Other governments were concerned about the poor quality of information on the spread of the disease and the significant underestimation of the amount of funds required for eradication disease. New South Wales responded to the threat of losing funds by

[1] Mr Graeme Eggleston, Transcript of Evidence, 8 August 2006, p10
[2] Audit Office of New South Wales, 2002, *op cit*, p54
[3] Productivity Commission, *Impact of a Foot and Mouth Outbreak in Australia*, Canberra 2002, pxxi
[4] Audit Office of New South Wales, 2002, *op cit*, p21

limiting the State's own liability through removal of the eligibility for compensations for losses suffered treating Newcastle Disease.[5]

7.7 The Performance Audit noted that a number of these issues would have been addressed in the revised Cost Sharing Deed of 2002 which expanded the number of diseases covered by the arrangements and clarified the roles of the parties and obligations for communication.[6]

7.8 However, one issue about the funding of Rural Lands Protection Board staff had not quite been resolved at the time of the public hearings for this inquiry. The Committee notes that, in the past, there had been issues about the responsibilities of the Department to cover the costs of Board staff in the case of emergency responses. This was a particular issue in relation to the Mangrove Mountain outbreak where Board staff provided assistance in the emergency. At that time the Department was not in a position to pay salary costs but, in accordance with the Agriculture and Animal Emergencies Memorandum of Understanding, only covered overtime and other operational costs. The Boards were concerned because they had no way of recouping the salary costs from industry because poultry are not defined as rateable stock in the legislation. Mr Graeme Eggleston, the Department's Director Emergencies and Strategic Response explained:

> We took this up with the Commonwealth as part of the Commonwealth and States deed of agreement on the funding of animal health emergencies. At that time, for around 12 months, we got agreement through the national agreement involving industry that we could fund the salaries of board district veterinarians for animal health-type emergencies because at that stage they were deemed to be "non-DPI employees" because with the 1998 rural lands protection legislation district veterinarians no longer were responsible to the Chief of Division of Animal Industries of the day.
>
> However, over the last 12 months that agreement has been revised again and the general principle that we are working with at the moment is that many of the normal operational issues, if you like to call them, that we do are not covered by that deed of agreement. Seeing that we are saying that the board district veterinarians are our "frontline staff", for the purposes of that agreement and they are deemed to be "government employees", the industry bodies and the other States will not agree to our recouping the salary component if our general animal health emergency staff are on the board staff. That is a matter we will have to negotiate. Finally, in the last two or three weeks we got a letter about it. This is something we will have to discuss with the RLP boards and Treasury as to how we might handle that in the future.[7]

7.9 The Committee notes that negotiations were underway at that time and trusts that these arrangements can be clarified to the satisfaction of all parties.

Emergency Response Deed for Animal Diseases

7.10 The Commonwealth, State and Territory governments share the cost of funding emergency animal disease responses in accordance with the *Government and Livestock Industry Cost Sharing Deed in respect of Emergency Animal Disease Responses*.[8] The most recent version of this deed was established in 2002. The

[5] Audit Office of New South Wales, 2002, *op cit*, pp29-31
[6] *ibid.,* p21
[7] Transcript of Evidence, 8 August 2006, p14
[8] The text of the deed is available from Animal Health Australia at www.animalhealthaustralia.com.au.

agreement covers 64 diseases which, for the purpose of assigning funding shares, it categorises in accordance with the sectors that benefit most from treating a disease.

Table 7.1 - Classification of Diseases and allocation of costs in accordance with cost sharing deed

Category	Description	Government: Industry share of funding (%)	Some Examples of diseases
Category 1	Diseases that predominantly seriously affect human health and/or the environment (depletion of native fauna) but may only have minimal direct consequences to the livestock industries.	100 % Government	Rabies Australian lyssaviruses (including bat lyssavirus) Japanese encephalitis Nipah virus
Category 2	Diseases that have the potential to cause major national socioeconomic consequences through very serious international trade losses, national market disruptions and very severe production losses in the livestock industries that are involved. This category includes diseases that may have slightly lower national socio-economic consequences, but also have significant public health and/or environmental consequences.	80% Government: 20% Industry	Avian influenza (highly pathogenic; virus subtypes H5 and H7) Bovine spongiform encephalopathy (BSE) Brucellosis (due to Brucella abortus) Brucellosis (due to Brucella melitensis) Hendra virus (formerly called equine morbillivirus) Foot-and-mouth disease
Category 3	These are emergency animal diseases that have the potential to cause significant (but generally moderate) national socio-economic consequences through international trade losses, market disruptions involving two or more states and severe production losses to affected industries, but have minimal or no affect on human health or the environment.	50% Government: 50% Industry	African horse sickness African swine fever Anthrax (major outbreaks) Avian influenza (highly pathogenic; other than virus subtypes H5 and H7) Avian influenza (low pathogenic; virus subtypes H5 and H7) Bluetongue (disease in sheep) Classical swine fever Menangle virus Newcastle disease Scrapie
Category 4	Diseases that could be classified as being mainly production loss diseases. While there may be international trade losses and local market disruptions, these would not be of a magnitude that would be expected to significantly affect the national economy. The main beneficiaries of a successful emergency response to an outbreak would be the affected industry(ies).	20% Government: 80% Industry	Aujeszky's disease Borne disease Contagious equine metritis dourine Equine encephalosis Equine influenza Getah virus Haemorrhagic septicaemia Heartwater

Source: *Government and Livestock Industry Cost Sharing Deed in respect of Emergency Animal Disease Responses*

7.11 Under the Deed, the local State or Territory government funds the costs of the incident identification phase until there is agreement from the Consultative Committee on Emergency Animal Diseases to invoke the cost sharing arrangements. Compensation for these costs can then be sought.[9] The Commonwealth provides 50 per cent of the Government's liability for all phases of the response. The State and Territory liability is divided according to the category. For diseases in category 1 which affect human health, the formula assigns responsibility in accordance with each jurisdiction's population. For other categories, the split is generally based on the number of animals in each State or Territory with complex calculations required to allow for multi-species diseases and the value of production from individual industry sectors.

7.12 Where only one animal species is affected by a disease, the relevant industry body is responsible for the industry share of costs. Where a disease affects more than one type of animal, the industry proportion is divided in accordance with a formula depending on the production value of the industry and the relative importance of that disease to the industry. These weightings have been agreed between industry partners.[10]

7.13 The deed provides that industries with a value of more than $20 million annually which are not parties to the deed should not received compensation under it but smaller industries should continue to do so.[11]

7.14 The deed covers the extra costs incurred by emergency response activities and compensates producers for clean up costs and for the loss of animals that died of emergency disease or that needed to be destroyed. Importantly, it does not compensate farmers for loss of income while under quarantine nor cover government costs for employees with emergency roles whose salaries would ordinarily be paid by governments.[12]

7.15 The deed includes defined processes to seek changes in classification of diseases or to seek a classification for a new disease. Anyone can request that such a review be made and this is considered by an expert panel.[13] The deed also provides that the industry and government shares are dependent on population and the value of industries be updated regularly.[14]

7.16 When the cost to industry has reached 1 per cent of the value of the industry (or 2 per cent in the case of a Foot and Mouth Disease response), then there is a consultative process to review the continuing need for the emergency response, who should pay for it and whether the response should be converted to a disease control program.[15]

[9] Animal Health Australia *Government and Livestock Industry Cost Sharing Deed in respect of Emergency Animal Disease Responses,* section 10.1
[10] *ibid.*, Schedule 6
[11] *ibid.,* Section 10.8
[12] *ibid.,* Schedule 6
[13] *ibid.,* Schedule 2
[14] *ibid.,* Schedule 6 – p59, p65
[15] *ibid.,* Section 10.5

7.17 The agreement includes accountability arrangements for establishing the costs of an outbreak, regular reporting requirements to government and industry parties and auditing of the expenditure on the response.[16]

Emergency Response Deeds for Plant Pests

7.18 An *Emergency Response Deed for Plant Pests* came into effect in October 2005 after ratification by all State and Territory governments, the Commonwealth Government and 14 plant industry members. The agreement can be used to assign funding shares in the event of an emergency.[17]

7.19 It has very similar provisions to the animal disease emergency cost sharing deed. Plant pests are divided into four categories with the same allocation of funding shares.[18] Industry parties also share funding responsibility where pests affect multiple types of crops. There are also processes for reviewing the categorisation of pests and reviewing the continuing effectiveness of emergency response plans when the costs to an industry reach a threshold.

Conclusion

7.20 These processes both seem to provide an effective consultative way for industry and government to define their respective responsibilities for funding of emergency disease and pest responses. The Committee considers that these intergovernmental agreements are well designed.

Effectiveness of the Agreements in Practice

7.21 The New South Wales Government submission stated that these enhanced arrangements for the flow of funds were tested in recent exercises.[19] In a public hearing before the Committee, Mr Graeme Eggleston, Director Emergencies and Strategic Response for the Department of Primary Industries commented on the effectiveness of implementing the cost sharing deed:

> **Mr EGGLESTON:** In the exercise that recently occurred, and that is all we can put it on with the new arrangements that are in place, we did not have any problems getting national agreement quickly. It was a little slower with Minotaur, but that is what we have exercises for. It has to be quicker and it was quicker. As I said, there may be a time when the State of New South Wales believes that we have to do something even more quickly than that, and that is where we had the emergency management arrangements, because it is all covered by the State disaster plan. If the Chief Veterinary Officer said that they were 50 cows in the Dubbo saleyards that he believed have foot and mouth disease and he did not want to wait for national agreement because the disease may spread quickly, the State Emergency Operations Controller has said that he will support putting those cows down before we get national agreement. That would certainly help to minimise the spread of that disease. But we have not had that situation yet, because

[16] *ibid.,* Section 13
[17] Available at http://www.planthealthaustralia.com.au/project_documents/uploads/EPPRDFINAL.pdf (accessed 14 November 2006)
[18] *Emergency Response Deed for Plant Pests* 9.3
[19] Whole of Government, Submission No.14, p7

> every time we put something like that up nationally it has been agreed to straightaway. The essence is to get our response plan done, and done very quickly.[20]

7.22 This indicates that, in practice, the national emergency agreements are reasonably effective in responding quickly to an identified emergency.

IMPACT ON DEPARTMENT'S BUDGET

7.23 The Committee was particularly concerned that, if the Department needed to spend funds to respond to an emergency pest or disease outbreak, resources would not be diverted from other essential activities. In 2005, the Evaluation Report of the Exercise Eleusis found that agricultural departments involved in the exercise assume resources will be "found" where actions are endorsed by the national committee. The exercise revealed a shortage of thorough planning for resource demands over the potential magnitude and length of the exercise. However, the evaluation team trusted that the National Animal Health Performance Standards will be the mechanism for jurisdictions to assess resource capability.[21] The Committee notes that the Animal Health Performance Standards require that "appropriate agencies have adequate resources to implement programs and to respond to emergency incidents."[22] This is an obligation on the State Government to comply with the standards to be a full participant in the national processes. However, it is not clear that this necessarily gives the Biosecurity Branch leverage with other areas competing for funds in the State's Budget processes.

7.24 The Performance Audit recommended that the Department explore the idea of an initial response fund that would be available when an emergency disease outbreak is suspected. This would minimise the impact on the Department's budget for other activities.[23] The Whole of Government submission stated that the Department has a contingency fund of $500,000 for such emergencies. Once this has been exhausted, the Department must seek supplementary funding. From 2000 to 2005 the Department received over $21 million for pest and disease management. However the Department can also be directed to spend its supplementary funds on areas outside its area of statutory responsibility, such as managing fire ants.[24]

7.25 Mr Ian Neale, Executive Director Resources for NSW Treasury, provided the following information about the level of funding for pest, weed and disease treatments provided over the past few years. The column on the left includes the funds included in the budget and the column on the right refers to funds provided for supplementation once the budgeted amount and the contingency funds were exhausted.

[20] Transcript of Evidence, 8 August 2006, pp8-9
[21] DAFFA *Exercise Eleusis 05 Key Findings*, pp10-11
[22] Animal Health Australia, *National Animal Health Performance Standards*, p9
[23] Audit Office of New South Wales, 2002, *op cit*, p7
[24] Whole of Government, Submission No.14, pp6-7. Treasury officials pointed out in the hearing that the Department had received dedicated Budget funding of over $13 million form 2003-4 to 2005-06 for the fire ant control program.

Table 7.2 - Funding provided to Department of Primary Industries for pests, weeds and diseases outbreaks

Year	Budgeted Funds	Supplementary Funds
2001-02	$2,300,000	$6,935,000
2002-03	$1,300,000	$9,503,000
2003-04	$10,500,000	$0
2004-05	$4,800,000	$4,060,000
2005-06	$5,500,000	$1,258,000
Total	**24,400,000**	**$21,756,000**

Source: Transcript of Hearing 8 August 2006, p.31, p.33

7.26 These funds vary significantly from one year to the next depending on the level of need. It is interesting to note that some years were better able to forecast the level of resources required to treat incursion risks. On the basis of this variability in resource needs, it would be impractical for the Department to have a dedicated emergency response fund of up to $10 million just in case there was a severe enough outbreak in any year that exceeded the normal forward planning level.

7.27 The Whole of Government submission states that NSW Treasury and the Department of Primary Industries have discussed the processes for forecasting and financial contingency planning in order to improve the ability to assess resource requirements.[25] Mr Neale explained the process for obtaining supplementary funds when unexpected situations arise:

> **Mr NEALE:** Generally under budgeting arrangements the departments get fairly blocked allocations and Treasury does require agencies to fund emerging circumstances themselves. But basically once they have used up the $500,000 they use as a contingency—and I might say that that contingency is money they put aside themselves from their overall allocation—they would then come to Treasury and if we thought it was an incident that required assistance, we would certainly look to the Treasurer's Advance Account and in doing that we do have an arrangement with the department whereby we have regular liaison with them so that we can be advised of emerging things happening in the rural industry area.
>
> We do make provision in the Treasurer's Advance account. On average, something like $5 million would be set aside in that Treasurer's Advance to meet the normal risks that we would anticipate could occur during the year. That is just based on past experience. If the department came to us and said, "Look, we have used up our contingency. We have an outbreak of a disease somewhere," Treasury would look at that and I would say 99 per cent provide them with the money.[26]

7.28 The Committee was reassured that there are systems in place for addressing unexpected funding problems so that the Department of Primary Industries can ask for supplementary funding when it has exhausted its contingency funding of $500,000 a year.

7.29 The NSW Treasury witnesses also indicated that they were in regular communication with the Department of Primary Industries about possible outbreaks. For instance, at the time of the hearing, Treasury officials were being briefed on the potential impacts

[25] *ibid.,* p7
[26] Transcript of Evidence, 8 August 2006, p31

for New South Wales of the outbreak of cane smut, a fungal infection of sugarcane, in Queensland.[27]

7.30 Committee asked about needs of other departments such as the Department of Environment and Conservation which has a responsibility for wildlife surveillance and disease response in national parks. NSW Treasury advised that over the past few years this Department has not been provided with a specific allocation for wildlife surveillance and emergency disease management and would only consider allocating resources on a needs basis after discussion with the Department of Primary Industries.[28] The Minister for the Environment has advised the Committee that there have been minimal direct costs associated with such work in recent years.[29]

Funding for Rural Lands Protection Boards

7.31 The Committee also heard that NSW Treasury could provide supplementary funds to cover shortfalls in industry levies collected by Rural Lands Protection Boards. In late 2004, the right conditions arose for an extremely large outbreak of plague locusts which, left untreated, would have destroyed almost $1 billion in crops, fodder and pasture. The treatment required spraying of the locusts and egg beds quickly before they hatched. Around a million hectares were treated. [30] The RLPB's Noxious Insects Fund, which raises levies from all rural ratepayers in the order of $4 million per year, had insufficient funds to treat the emergency. Treasury advanced a loan of $14 million to the Department of Primary Industries to deal with the locusts. The Boards agreed to increase the rate of levy collection to cover the loan and the Department's out of pocket expenses by repaying the amount over four years.[31]

7.32 The Committee is confident that processes are in place for the Government to consult with relevant industry bodies about the level of resources required to treat emergency outbreaks and can provide assistance if required to meet funding shortfalls so other activities are not compromised.

NON-EMERGENCY DISEASE MANAGEMENT

7.33 The Committee recognises that animal health programs and surveillance programs are the backbone of a robust emergency response. The NSW Farmers' Association expressed concern about the funding arrangements for non-emergency disease management. The Association considered that "normal resource commitments are increasingly user-pays" and stated that a user-pays system would not result in a robust capacity for managing endemic diseases.[32]

7.34 When asked whether the overall level of resources had declined over the past decade, the Department or Primary Industries acknowledged that funds were lower but were being used in a more targeted way:

[27] *ibid.,* p33
[28] Correspondence from Mr Ian Neale, NSW Treasury, 31 August 2006
[29] Correspondence from the Minister for the Environment, Hon Bob Debus, 6 November 2006
[30] State Council of RLPBs, *Annual Report 2004*, p22
[31] Transcript of Evidence, 8 August 2006, p10, 26, 32
[32] NSW Farmers' Association, Submission No.4, p3

> Over the past decade, there have been significant changes to the way in which animal health programs are run in NSW. Technological and scientific developments, as well as structural changes in such programs have impacted on resource requirements, both in terms of employees and infrastructure.
>
> Although resources available for animal health programs have been reduced in simple numerical terms, this reduction reflects significant savings and efficiencies which have been realised in many programs. Overall, existing programs have become more efficient and, where appropriate, industry has taken a greater role in participating in, and contributing to many animal health programs.[33]

7.35 Primary producers contribute directly to the funding of animal health programs through animal health rates paid to Rural Lands Protection Boards, totalling $8.8 million in 2004. Landholders also contributed $14.4 million to general rates for the Boards' operations.[34] Producers also contribute to specific industry levies as required. Some of these are voluntary, such as the new OJD levy, but others are mandatory.

7.36 As discussed in Chapter Two, the Government's policy of when industry should pay is based on where the majority of the benefits of treatment accrue. The Government pays a higher proportion where public safety is at risk. The Committee is not questioning this policy. The Committee, however, queries whether, in times of low farm incomes the Department is applying the right balance between minimising costs to the public purse and risks to industry as a whole.

"Non-rateable" Stock

7.37 The State Council of Rural Lands Protection Boards submission pointed out that Boards are not able to raise animal health levies from poultry producers because they are not classified as "stock" under the *Rural Lands Protection Act 1998*.[35] This is not an issue for emergency disease response activities because the extra costs would be covered by the emergency response cost sharing deed. However, Board staff have obligations under both the *Stock Diseases* and *Exotic Diseases Acts* to conduct inspections of animals that includes poultry. The Department of Primary Industries considered that the costs of a potential disease investigation in poultry would be a normal operational cost for Boards.[36]

7.38 Therefore there is potential for Board resources to be diverted from other animal health control programs in order to conduct surveillance, disease investigations or preparedness activities for non-rateable stock animals such as chickens or even rabies in dogs. These potential costs could be the time spent by District Veterinarians in investigating emergency diseases and laboratory fees.[37] This is not an ideal situation as producers who contribute animal health rates are not benefiting from these activities. However, the Committee notes that poultry producers would contribute to Boards' general rates so they could have some reasonable expectation of minimal animal health services.

[33] DPI, Answers to Questions on Notice, 25 October 2006, p7
[34] State Council of RLPBs, *Annual Report 2004*, p50
[35] State Council of the Rural Lands Protection Boards, Submission No.12, p4
[36] DPI, Answers to Questions on Notice, 25 October 2006, p3
[37] State Council of the Rural Lands Protection Boards, Submission No.12, p4

7.39 The Committee asked Mr Steve Orr, the Chief Executive from the State Council of RLPBs, whether the definition of "stock" should be extended so that poultry producers would be liable for animal health rates. He did not support this without a careful analysis of the costs and benefits of such an approach and the level of services that Boards could provide:

> We need to be comfortable in what we can provide in responding to the poultry industry and the issues surrounding the poultry industry if we are to be involved. Are there other means and mechanisms by which our involvement can be funded? For example, if our involvement is only to be involved in exotic diseases and the outbreak of exotic diseases, is it reasonable to impose a levy across industry just for that level of involvement? We need to think through those issues fairly carefully. What I am saying is we need to be mindful of what we can do. We need to be mindful of what industry is getting in return and we need to be quite clear about those questions before deciding whether or not to impose a further levy on that industry.[38]

7.40 An alternative approach could be for the Department to provide specific additional funds to Boards for conducting such investigations.

7.41 The Committee notes that the Memorandum of Understanding between the Department of Primary Industries and the State Council of RLPBs is currently under review. The issue of appropriate board roles and funding arrangements could be discussed in this process.

RECOMMENDATION 17: The Committee encourages the Department and the Rural Land Protection Boards to discuss the need for funding of poultry surveillance activities in the context of reviewing the Memorandum of Understanding between the two parties.

Disease Control Funds

7.42 The Committee notes that in 2005, the Government amended the *Agricultural Livestock (Disease Control Funding) Act 1998* to improve the processes for developing disease control programs in consultation with relevant livestock industries. The amendments established an industry based Standing Disease Control Advisory Committee which can recommend the establishment of a disease control program to the Minister for Primary Industries. A specific Industry Advisory Committee is then established to guide the program and advise on funding arrangements. Industry funds are to be managed by a separate fund administrator. The Government submission states that these arrangements work well for the new OJD program.[39]

7.43 The Committee understands that such arrangements could be used for any future disease control program to be funded at least partly by industry. They seem adequately consultative and flexible to take into account the changing needs of the relevant sector. This should improve the way industry funds are managed and ensure that there is industry commitment to any disease control programs.

7.44 The Committee notes that some sectors of the industry have expressed reservations about the ability of industry representatives to reflect their views. For instance the Forbes OJD action group made repeated calls for a referendum of sheep producers.[40]

[38] Transcript of Evidence, 8 August 2006, p22
[39] Whole of Government, Submission No.14, p13
[40] Forbes OJD Action Group, Submission No.1

Mr Gerard Keogh, a sheep producer from southern New South Wales, queried the ability of the current OJD Industry Advisory Committee to provide any expert views on the success of the programs as its members are not from areas where the disease is prevalent. He considered that issues affecting only certain regions did not receive adequate attention in state level industry organisations.[41] The Committee notes that producers may not have the opportunity to remove representatives once appointed to such committees. The Government should ensure that the governance arrangements for such industry committees require elections of appointees and regular consultation with all sectors of the industry.

Accountability to producers

7.45 The Farmers' Association expressed concern about the accountability arrangements for disease control programs with multiple sources of funding, such as the previous National OJD program, for which the accounts of the last two years were not yet available. The Association recommended that there be increased transparency of reporting for the use of industry levies.[42] The Committee agrees that the Government has a duty to account of the use of industry levies. It notes that the revised emergency response deeds require improved reporting to contributors of funds and the new agricultural disease control arrangements should contribute to improved accountability to industry.

Conclusion

7.46 The Committee considers that the State Government has effective strategies in place to provide resources for managing both emergency and endemic diseases. The arrangements include clearly defined roles for industry and government.

7.47 The Committee notes the concern of the NSW Farmers' Association with the Government's expectation that primary producers will contribute funds to the management of animal diseases. However the processes are in place for such funds to be established with the consultation and commitment of affected producers.

[41] Mr Gerard Keogh, Submission No.15, p2
[42] NSW Farmers' Association, Submission No.4, pp11-12

Chapter Eight - Johne's Disease

8.1 In February 2003, the New South Wales Audit Office tabled in Parliament a Performance Audit Report examining the management of the Ovine Johne's Disease (OJD) Program in New South Wales, including its planning, operations and evaluation. The Report made findings and recommendations to improve the Program.

8.2 This Chapter will outline the features of the National Ovine Johne's Disease Program (NOJDP) that ran from 1998 to 2004 before it was replaced by a new program, the National Approach to the Management of Ovine Johne's Disease (NAOJD). The Government's response to the findings and recommendations will also be examined.

8.3 The Committee notes the original OJD Program endured a difficult implementation. Throughout the inquiry, the Committee heard a wide range of opinions on how Johne's disease should be approached, some of which reflected sharp divisions within the livestock industry itself. Some farmers considered OJD and BJD to be endemic and efforts should focus on managing them, rather than seeking complete eradication, but others maintained that those areas of the state yet to suffer cases of OJD should be given disease-free status and enjoy unregulated trade. The Committee noted that some industry bodies had difficulty in accommodating the breadth of these views. Many problematic issues were addressed through the introduction of the new Program in 2004. However, while it may be too early for the new Program to be comprehensively evaluated, the Committee emphasises the importance for continued progress to be made in areas of concern.

8.4 The Committee is mindful that the NOJDP's objectives included accumulating knowledge to enable an effective method of countering the disease to be developed. Despite many difficulties encountered during the implementation of the original Program, it has at least enabled the implementation of an improved program.[1]

Background

8.5 OJD is a wasting disease caused by bacteria affecting mainly the small intestine of sheep. The intestine wall thickens over time and the sheep increasingly struggles to absorb nutrition from food. Animals with clinical OJD generally appear to remain healthy, but slowly lose condition and die within six months.[2] It is believed that OJD was introduced to New South Wales from New Zealand and was first officially recognised in the Central Tablelands in 1980.[3]

8.6 Evidence presented to the Committee indicated the disease represented a considerable threat to the sheep industry in New South Wales. OJD can be difficult to detect and, according to the Department of Primary Industries, has potential to kill about 10 per cent of adult sheep each year if left unmanaged.[4] At the time of the Performance Audit Report, NSW Agriculture estimated that leaving the disease

[1] R. Bull, *Assessment of the NSW Ovine Johne's Disease Program*, September 2003, p14
[2] DPI, "Ovine Johne's disease - what is it?" available at http://www.agric.nsw.gov.au/reader/ojd-what-is-it (accessed 19 October 2006)
[3] Department of Agriculture, *Assessment and recommendations of OJD program - Bull Report summary*, September 2003, p1
[4] DPI, *The basics: OJD Information Sheet 1*, available at http://www.agric.nsw.gov.au/reader/ojd-what-is-it (accessed 12 September 2006)

uncontrolled would cost the state economy more than $200 million in stock losses and almost $250 million in lost wool income per year.[5] The Department of Primary Industries stated that OJD is spread largely when sheep are traded or stray.[6] Environmental factors, such as acid soils and dampness, are also likely to increase chances of the disease spreading.[7]

8.7 A national approach to OJD was adopted in 1998 when Agricultural Ministers from Commonwealth, State and Territory governments agreed to a National Ovine Johne's Disease Program (NOJDP). The Program's introduction received endorsement at the time from the Wool Council of Australia and the Sheepmeat Council of Australia.[8] However, the NOJDP endured a difficult introduction and resistance from within the sheep industry in New South Wales.

8.8 The approach to OJD in New South Wales has resulted in significant differences in opinion and extensive review, most notably in the Report, *Assessment of the NSW Ovine Johne's Disease Program*, also known as the "Bull Report".[9] There has been significant change since the Performance Audit Report, including the implementation in 2004 of the new Program which took account of improved understanding of the disease and a determination to allow industry a key role in its management.

National Ovine Johne's Disease Program, 1998-2004

8.9 The NOJDP began in 1998 and was funded by Commonwealth and State governments and the sheep industry. It promoted national research into the disease and a consistent approach to control measures. States were given considerable power to implement the Program and, in New South Wales, it was managed through a combination of industry and government agencies.[10]

8.10 The original aim of the Program was to minimise the impact of the disease by containing it and controlling its effects. The Program's ultimate aim was to eradicate the disease although it deferred setting a time frame for this, pending the outcome of further research and evaluation.[11]

8.11 In New South Wales, the OJD program was supported through a program team and officers in the Division of Animal Industries of the then Department of Agriculture.[12] The State's approach adhered to strategies "largely based on traditional regulatory disease control tools".[13] In this case, the strategies included:

- Identification of infected flocks and flocks suspected of having OJD;
- Restricting movement of infected and suspect flocks; and

[5] Audit Office of New South Wales, 2003*, NSW Agriculture: Implementing the Ovine Johne's Disease Program*, p2
[6] DPI, *The basics: OJD Information Sheet 1*, *op cit*
[7] Mr John Carter, Transcript of Evidence, 9 August 2006, p9
[8] R. Bull, *op cit,* p5
[9] *ibid.*
[10] Animal Health Australia, 'Ovine Johne's Disease in Australia', available at http://www.animalhealthaustralia.com.au/aahc/programs/jd/ojd.cfm (accessed 9 October 2006); Audit Office of New South Wales, 2003*, op cit*, p2
[11] Audit Office of New South Wales, 2003*, op cit*, p14
[12] *ibid.*
[13] Animal Health Australia, 'Ovine Johne's Disease in Australia', *op cit*

- Zoning, which prescribed minimum disease control standards and requirements for moving animals to zones of higher status.

8.12 Producers operating in low risk areas were allowed to trade without restrictions, but were subject to surveillance.[14] The NOJDP essentially focussed on on-farm testing, abattoir surveillance, vaccination and program procedures.[15]

8.13 Funding of the original OJD Program included levies collected from industry under the *Agricultural Livestock (Disease Control Funding) Act 1998*. The Minister, on advice from the OJD Industry Advisory Committee, used the levies to provide financial support as considered necessary. Sheep producers were levied according to sheep numbers or land carrying capacity. The introduction of a new OJD Program included shifting to transaction-based levies in New South Wales, similar to systems used interstate.[16] Producers can opt out of this levy but, if they do so, lose eligibility for compensation through the Program.

8.14 Actual delivery of the Program was the responsibility of Rural Land Protection Boards, as part of their role to provide "frontline" animal health services on behalf of the community. The level of activity of individual Boards varied according to the extent of OJD in their area.[17]

Performance Audit Report

8.15 The Audit Office's Performance Audit Report, released in February 2003, noted the OJD Program's original implementation in New South Wales was "prolonged and difficult".[18] The Program confronted significant challenges, namely the lack of a strategic approach to program management and a poorly defined governance structure. These problems were exacerbated by the disease's insidious nature and the relatively limited knowledge about it at the time.[19]

8.16 According to the Performance Audit Report, these difficulties led to:

- Extended, negative debate;
- Limited assistance to producers, notably initially;
- Dissatisfied stakeholders, particularly sheep stud producers; and
- Limited operational planning and review.[20]

8.17 An environment of debate and division prevailed at the time of the Performance Audit Report's release. In a hearing before the Committee, the then Auditor-General, Mr Bob Sendt, stated that management of the disease was hindered by disparate views within the industry, which,

[14] Audit Office of New South Wales, 2003*, op cit*, p13
[15] *ibid.,* p16
[16] *ibid.;* State Council of the Rural Lands Protection Boards, Submission No.12, p2; Mr John Carter, Transcript of Evidence, 9 August 2006, p5
[17] State Council of the Rural Lands Protection Boards, Submission No.12, p2; Audit Office of New South Wales, 2003, *op cit,* p2
[18] Audit Office of New South Wales, 2003*, op cit,* p3
[19] *ibid.,* p3; Transcript of Evidence, 8 August 2006, p4; NSW Farmers Association, Submission No.4, p14;
[20] Audit Office of New South Wales, 2003*, op cit,* p3

> ...did not share a common view as to the significance of the issue and what needed to be done. In fact, there were significant divisions in the industry, in part based on geography.[21]

8.18 Tension was evident between producers with infected stock and those whose stock were free of OJD. Infection rates differ across New South Wales, with the north and west of the state largely free of OJD. Their counterparts in southern and central parts of the state have complained of the stigma associated with their stock testing positive for OJD and the subsequent financial burden of restricted trading.[22] Some farmers considered the disease to be endemic and therefore should be subject to policies aiming to manage the disease, rather than aiming to remove it altogether.[23] There was a lack of industry commitment to a united course of action.

8.19 The Performance Audit Report focused specifically on aspects of managing the OJD Program in New South Wales, including its planning, operations and evaluation. It included key findings and recommendations that contributed to positive changes in management of the OJD Program, according to the Department. The recommendations also applied to future non-emergency programs.[24]

8.20 The Audit Office's key findings related to:

- Missing operational strategies;
- Confusing Communication;
- Casualties of regulation;
- Slow Acceptance;
- Leadership and Governance;
- Industry Levy; and
- Disease Approach.

8.21 The Report made three recommendations that applied to both OJD and future non-emergency programs.[25]

8.22 The Department's immediate reaction, as included in the original Performance Audit Report, noted the usefulness of the Report to the management of OJD. However, the original response also noted the Department's concerns over a number findings that did not "adequately acknowledge the constraints applying at the time," and some inaccuracies on technical issues.[26]

8.23 In a hearing before the Committee the Department again acknowledged the Report's value, particularly with respect to the poor strategic approach and an ill-defined governance structure for the original Program.[27]

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[21] Mr Bob Sendt, Transcript of Evidence, p28; also R. Bull, *op cit,* p6
[22] Audit Office of New South Wales, 2003*, op cit,* p24
[23] Mr John Carter, Transcript of Evidence, 9 August 2006, p1; It should be noted that since the original program ceased in 2004, OJD management has focused more on containment rather than eradication.
[24] Audit Office of New South Wales, 2003*, op cit,* pp2-5
[25] *ibid.*, p5
[26] *ibid.*, p6
[27] Ms Regina Fogarty, Transcript of Evidence, 8 August 2006, p3

8.24 The Performance Audit Report's findings are discussed in the following section, including summaries of evidence provided to the Committee on progress since the Report.

Missing operational strategies

8.25 The Performance Audit Report considered it important for appropriate objectives to be established for the Program, including broad objectives and those specifically tailored according to prevalence areas. The Report stated that while much of this had been done in the original program, it was not brought together and presented in a strategic manner.[28] The Program had not adapted the broader national plan to the situation in New South Wales. Industry and government in New South Wales did not set specific targets and outcomes, which prevented effective evaluation of the Program.[29]

8.26 The Program's difficulties were exacerbated by a poor management structure and ineffective communication, which will be discussed later in this section.

8.27 The Performance Audit Report made the following recommendation:

> A more comprehensive strategic approach to the OJD Program in New South Wales is required, including operational objectives and targets. This will allow for better co-ordination and monitoring by industry and NSW Agriculture.[30]

8.28 The Department's efforts to improve coordination with industry included a "broad consultative inquiry" into management of the OJD, which resulted in the eventual release of the Bull Report in September 2003. The inquiry process included 25 consultative meetings with major industry stakeholders and received almost 100 submissions.[31]

8.29 The New South Wales OJD Advisory Committee also undertook consultation with sheep producers and industry representatives. According to the Whole of Government submission:

> Both reports recommended a move away from the regulated control of OJD towards risk-based trading underpinned by accompanying documented declarations of the status of animals in regard to OJD.[32]

8.30 The National Approach to the management of OJD (NAOJD) that commenced in 2004 has three main objectives:

- Areas currently free of disease remain free;
- Area prevalence will be maintained or reduced for the Very Low Prevalence, Low Prevalence and Medium Prevalence Areas; and
- Area prevalence will be reduced in High Prevalence Areas such that prevalence area status may be reviewed in the longer term.[33]

[28] Audit Office of New South Wales, 2003*, op cit,* p18
[29] *ibid.*
[30] *ibid.*, p5
[31] Whole of Government, Submission, p10; R. Bull, *op cit*, pp6, 50
[32] Whole of Government, Submission, p10

8.31 The strategic goals of the new State Program followed closely the approach of the NAOJD. The New South Wales Government completed implementation of its new approach to the disease in July 2004 to coincide with the introduction of the NAOJD. The State Program was supported by four key elements:

- Removal of zones and zone-based trading restrictions;
- Establishment of prevalence areas;
- Establishment of a nationally agreed trading system using Animal Health Statements and assurance-based credit (ABC) points; and
- Unrestricted access to vaccine. [34]

8.32 New South Wales's strategy is now focussed in two parts, reflecting the different views of producers in high prevalence and low prevalence areas:

1. Management areas: mainly comprising the higher prevalence areas, encourage producers to manage their own risk through vaccination, on-farm management and informed purchase of sheep.
2. Exclusion areas: mainly comprising the low prevalence areas, which aim to slow the potential spread of OJD by demonstrating local producer support for self-funded and self-managed district programs.[35]

8.33 The NAOJD also changed the focus from a highly regulated approach to a risk-based approach to OJD management.[36] Efforts were also increased to provide industry with the key role in managing the disease and reduce government-imposed restrictions.[37]

8.34 The Department of Primary Industries claims the response from industry has been positive, with the onus now on producers to either disclose the risk of OJD in their stock or assess the risk in sheep being purchased:

> ...early indications are that industry have accepted greater responsibility under the program and there are high levels of compliance.[38]

Sheep Health Statements and OJD Exclusion Zones

8.35 The new State Program includes two important components: a risk-based trading system based on Sheep Health Statements and the use of OJD exclusion zones.

8.36 The risk-based system has replaced regulatory restrictions that applied on trading OJD-infected sheep. The sheep industry and governments have agreed to manage

[33] DPI, 'National and NSW approach to management of OJD from 1st July 2004', available at http://www.agric.nsw.gov.au/reader/national-approach (accessed 27 October 2006)
[34] *ibid.*
[35] Whole of Government, Submission p12
[36] DPI, Answers to Questions on Notice, 25 October 2006, pp12-13
[37] Animal Health Australia, 'Ovine Johne's Disease in Australia', available at http://www.animalhealthaustralia.com.au/aahc/programs/jd/ojd.cfm (accessed 9 October 2006). The Bull Report also recommended a greater role for industry in OJD management. R. Bull, *op cit,* p10
[38] DPI, Answers to Questions on Notice, 25 October 2006, p4

OJD through an Assurance Based Credit (ABC) points system, which is underpinned by Sheep Health Statements (SHS) (formerly known as Animal Health Statements).[39]

8.37 Producers now have more responsibility to assess risk through the Sheep Health Statement, which is a formal document completed by the seller that grades OJD risk in sheep from different backgrounds.[40]

8.38 According to Ms Regina Fogarty, Director, Extensive Industries Development, Department of Primary Industries:

> (I)t is now a case of buyer be informed and buyer be aware of what you are buying, and asking the vendor the nature of the animals and getting a history... There are currently no regulatory restrictions on infected properties in New South Wales, so there is no regulatory impediment to any trade. But certainly if someone does not want to buy an infected sheep, or have the risk of buying an infected sheep from a property, that is their right and privilege to do so... We have supported the process of making buyers ask the questions they need to ask to make sure they get the sheep they want.[41]

8.39 Since the new Program began, the Committee understands the Statements have been mandatory for producers moving sheep to agistment or sale, in order to promote producers' familiarity with the forms. The NSW OJD Industry Advisory Committee recommended this step. The Department considers it likely the Health Statements will no longer be mandatory after January 2007.[42]

8.40 While the system is running as intended, the biggest challenge may be among sellers, who are not utilising the information provided through the Statements. Ms Fogarty stated:

> [Buyers] are possibly not using the system as well as they could... They go for price, they go for the sort of animal they want, and perhaps they do not rate disease as highly as people who come from a veterinary animal health background would rate it if they were looking at purchasing stock. People have to make a decision based on a whole range of issues. They put animal health in the mix. It would be really nice if they put in high in the mix, but they do not.[43]

RECOMMENDATION 18: That the Department should continue to raise awareness among producers of OJD risks and the operation of Sheep Health Statements.

8.41 Districts with low levels of OJD prevalence are able to apply, through the *Stock Diseases Act 1923*, for 'protected' status known as OJD Exclusion Areas. Twenty of the state's 47 RLPB regions currently have Exclusion Area status, which aims to maintain their low incidence of OJD.[44]

8.42 According to the Department of Primary Industries, an Exclusion Area only operates successfully if producers take collective ownership of managing their risks by buying wisely and acting responsibly when infection is detected or even suspected. Producers are more closely involved in management of Exclusion Areas and

[39] Available at http://www.agric.nsw.gov.au/reader/ojd-transport-trade/ojd-ahs.htm (accessed 27 October 2006)
[40] DPI, Answers to Questions on Notice, 25 October 2006, p4
[41] Ms Regina Fogarty, Transcript of Evidence, 8 August 2006, p12
[42] DPI, Answers to Questions on Notice, 25 October 2006, p4
[43] Ms Regina Fogarty Transcript of Evidence, 8 August 2006, p12
[44] DPI, Answers to Questions on Notice, 25 October 2006, p6

regulations are used as a "last resort" response. RLPBs have adopted more of an advisory role than under the previous Program.[45]

8.43 The Department informed the Committee that:

> An internal DPI review of OJD Exclusion Areas was conducted in 2005, which concluded that the Exclusion Area concept had been well accepted and supported by the majority of producers involved.[46]

8.44 The Committee received evidence that no infringement notices have been issued and no prosecutions undertaken as a result of misrepresentation on Sheep Health Statements. The Department has audited the use of Sheep Health Statements at three major sheep sales and the only action taken has been due to forms that were incomplete or wrongly filled in.[47]

8.45 The Department claims to have received few complaints about this system and states that that there is a "high level of compliance."[48] The Committee considers this to be encouraging.

Communication and awareness

8.46 The Performance Audit Report identified poor communication of the Program's policies and procedures as a further hindrance to its successful implementation. In part this was due to the lack of knowledge of the disease when the program was established and the "ad hoc" nature of the Department's measures to combat the disease.[49]

8.47 The situation was summarised by Mr Steve Ottaway, Animal Health Manager, State Council of Rural Lands Protection:

> (The previous OJD program…) created all sorts of expectations from the community. It was not clear often to industry, nor to some boards, what the objective was.[50]

8.48 The 2003 Bull Report that reviewed the original program found levels of knowledge amongst producers to be unevenly distributed. Although media publicity had ensured the disease was well known, levels of actual knowledge generally was poor, with the exception of high prevalence areas and affected producers. The Bull Report states:

> Quite a deal of misinformation has clouded the genuine facts about the disease, especially with the strategies to control the disease such as vaccine use.[51]

8.49 Industry groups also receive advice on OJD from the Department of Primary Industries and RLPBs. Communication is now addressed through a designated OJD website that contains information on the disease and relevant policies.[52]

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[45] Department of Agriculture, 'OJD Exclusion Areas - detailed information', available at http://www.agric.nsw.gov.au/reader/exclusion-areas-explained/exclusion-area-info.htm (accessed 24 October 2006)
[46] DPI, Answers to Questions on Notice, 25 October 2006, p4
[47] *ibid.*, p5; Ms Regina Fogarty, Transcript of Evidence, 8 August 2006, p12
[48] DPI, Answers to Questions on Notice, 25 October 2006, p5
[49] Audit Office of New South Wales, 2003*, op cit,* p26
[50] Mr Stephen Ottaway, Transcript of Evidence, 8 August 2006, p26
[51] R. Bull, *op cit,* September 2003, p6
[52] Whole of Government, Submission, p14

Casualties of regulation

8.50 The Performance Audit Report found that regulations used to contain the disease caused many affected producers to endure financial and social hardships. The original Program did not adequately address this issue.[53]

8.51 The Report was critical of NSW Agriculture's slowness in providing support to producers, including financial assistance. For its part, the Department rejected the notion it had ignored the financial and social impacts, claiming the Report failed to account for financial constraints and policy limitations at a national level.[54] In any case, significant numbers of producers were alienated from the program and, as a result, its effectiveness was curtailed.[55]

8.52 Producers with infected stock were required to restrict trading to minimise the threat of spreading the disease, which had potential to significantly hinder their viability, with no financial assistance available.[56] Once in place, these restrictions were difficult to remove because there was no simple way available to eradicate the disease from infected flocks.[57]

8.53 With respect to OJD, Mr Keith Hart, from the Association of District Veterinarians of New South Wales, said:

> We tried to use standard regulatory techniques to control what turned out to be an endemic disease in a significant part of the State... That was a major mistake.[58]

8.54 The Committee has been made aware of the significant impact on producers following detection of OJD in their stock and subsequent difficulties they have faced. The Bull Report also noted the burden carried by affected producers, many of whom endured financial and emotional consequences following a positive test for OJD in their flocks.[59]

8.55 As noted in the Bull Report, the social impact on producers could not be overestimated. A positive test for OJD resulted in:

> ...isolation, to producers being "treated like lepers". Many producers had feelings of guilt as they did not believe they could provide for their families or hand their properties on to children.[60]

8.56 It is clear from evidence presented during this inquiry that considerable resentment remains despite major improvements the management of OJD. There was damage to reputations of the Government Department itself, RLPBs and those generally involved in delivering the original OJD Program in New South Wales. The Performance Audit Report noted the lack of trust felt by producers towards the Department.[61]

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[53] Audit Office of New South Wales, 2003*, op cit,* p4
[54] *ibid.*, p7
[55] *ibid.*, p20
[56] *ibid.*, p24; Mr Carter p2; Forbes OJD Action Group, Submission No.1
[57] Audit Office of New South Wales, 2003*, op cit,* p13
[58] Mr Keith Hart, Transcript of Evidence, 9 August 2006, p20
[59] R. Bull, op cit, p7
[60] *ibid.*, p16
[61] Audit Office of New South Wales, 2003*, op cit*, p24; R. Bull, *op cit,* p16

8.57 The Forbes OJD Action Group's submission summarised its campaigning over many years, which further illustrated the depth of feeling on this issue.[62] The Performance Audit Report noted the Director-General of NSW Agriculture at the time did not attend public meetings because of threats of physical harm.[63]

8.58 Mr John Carter, Australian Johne's Association and Australian Beef Association, stated in a hearing before the Committee:

> The damage that has been done to the relationship between the veterinary divisions and producers threatens the future of any exotic disease control program because so many people's lives have been destroyed because they have been identified (as owning diseased stock). As a result, if one has an animal with possible bovine spongiform encephalopathy [mad cow disease] staggering around the paddock, one shoots it and puts it underground. One would not go to a veterinarian because of the fear of being quarantined and broken. This very serious situation has been allowed to develop.[64]

8.59 The Committee is concerned that the original OJD program may have contributed to some producers' reluctance to report cases of OJD and, in turn, other diseases.[65]

8.60 The Bull Report also noted the reluctance of some producers to report possible disease due to the significant impact that followed:

> The fear of the impact of regulations following a positive test on self and neighbours led many to not being willing to test. This meant many producers were also less willing to have veterinarians on property for any sheep suspected in relation to other diseases due to fear of accidentally finding OJD. It delayed the early use of vaccine, worsened loss rates and increased spread.[66]

8.61 The Committee notes the introduction of the new Program includes many changes that will be welcomed by the industry. Nevertheless, the Committee emphasises the importance of continuing to build levels of trust and improve communication to maximise the effectiveness of the new Program and, indirectly, the effectiveness of other disease programs.

RECOMMENDATION 19: That the Department continue to pursue improvements to consultation with industry and accountability mechanisms to further build trust between industry and government, thereby enhancing the effectiveness of the OJD Program.

Slow acceptance

8.62 A number of factors contributed to the slowness of the industry's response to the original OJD Program, including limited understanding of the disease at the time, poor consultation, divisions over the best approach, unclear processes and a lack of effective coordination.

8.63 The Performance Audit Report noted the Program was gaining wider acceptance from affected farmers at time the Report was published, more than four years after the Program was first established. One of the key factors in this improvement was the

[62] Forbes OJD Action Group, Submission No.1
[63] Audit Office of New South Wales, 2003*, op cit,* p27
[64] Mr John Carter, Transcript of Evidence, 9 August 2006, p2
[65] *ibid.*, p5
[66] R. Bull, *op cit,* p16

introduction of the vaccine, along with improved familiarity with the Program and awareness among producers.[67]

8.64 One dose of the vaccination provides lifelong protection for sheep and New South Wales's use of the vaccine enables accumulation of ABC points for trading advantage.[68] The Department maintains that the OJD vaccine is now "freely available" to producers.[69] The vaccine can be obtained through RLPBs and authorised private veterinary practices. According to the Department, some RLPBs "claim rates of restocked vaccination of 75% or more in their areas."[70]

Leadership and Governance

8.65 The Performance Audit Report stated the original Program's governing structure was inadequate. The challenges of managing the program were compounded by the former program's committee structure, which hindered consultation and responsiveness to developments with respect to the disease.[71] There was no "definitive point" of responsibility for the Program that could undertake strategic evaluation with the joint authority of industry and government.[72] The Report suggested a revised structure would improve co-ordination and accountability.

8.66 The original Program's governing structure not only was detrimental to the Program's operation, but also contributed to:

> ...diminish farmer expectations (among producers) of fair and equitable service.[73]

8.67 Evidence provided to the Committee by the Forbes OJD Action Group outlined concerns over limited input from the sheep industry. The Action Group repeatedly called for a referendum of sheep producers as to how the disease should be managed.[74] Mr Gerard Keogh noted the drawbacks of the Program being run at a state level when the problem was concentrated in districts. He considered statewide groups such as the State Council of RLPBs and the NSW Farmers' Association had not adequately represented the views of producers affected by OJD.[75]

8.68 The New South Wales situation contrasted unfavourably with the national OJD structure, which was supported by a Program Advisory Committee that assessed progress and dealt with any issues arising, and a national Veterinary Committee that provided technical advice. The Performance Audit Report suggested similar arrangements for a program committee and support structure might be advantageous in New South Wales.[76]

[67] Audit Office of New South Wales, 2003*, op cit*, p4
[68] DPI, Answers to Questions on Notice, 25 October 2006, p5
[69] *ibid.,* p5-6
[70] *ibid.*, p5
[71] Audit Office of New South Wales, 2003*, op cit*, p4
[72] *ibid.*, p20
[73] *ibid.*
[74] Forbes OJD Action Group, Submission No.1, p2; see Audit Office of New South Wales, 2003*, op cit*, p24
[75] Mr Gerard Keogh, Submission No.15, p2
[76] Audit Office of New South Wales, 2003*, op cit*, p20

8.69 According to the Performance Audit Report:

> Clearer roles and responsibilities should result in more authoritative advice and recommendations to the Minister and the National Program on the management and operation of the Program in New South Wales.[77]

8.70 The Report considered that further input from industry and government could be obtained through working parties and consultative networks, including professional assistance from the Department.

8.71 As a result, the Performance Audit Report's second recommendation stated:

> The governance arrangements need to provide for greater direction and control over the OJD Program in New South Wales. The roles and responsibilities of committees, working parties and Government should be revised to complement the above strategic and operational framework, and to implement the Program fully.[78]

8.72 The New South Wales Government's submission stated that a new structure for management of endemic diseases, including OJD, was established in 2005, providing stronger governance to support livestock industries' management of disease control plans. For example, the introduction of the new OJD program was overseen by a steering committee comprising both government and industry representatives.[79]

8.73 A central part of the new structure was the industry-based Standing Disease Control Advisory Committee, which deliberates on the establishment of industry-funded animal disease control programs. Industry involvement in disease programs is now maintained through the appointment by the Minister for Primary Industries of an Industry Advisory Committee to "provide direction… including advice on any funding arrangements that may be required."[80]

8.74 A separate Fund Manager for disease programs is required to ensure appropriate governance arrangements for any industry funds established in the future.[81]

8.75 Within the Department itself, there is an OJD Management Group chaired by the New South Wales Chief Veterinary Officer that monitors adherence to both state and national programs. According to the Whole of Government submission to this inquiry, the Management Group has:

> … proved extremely successful for the management of OJD. It brings together officers from biosecurity policy, biosecurity operations, compliance, industry development extension and research, and provides an efficient forum for review of current activities and consideration of any initiatives or concerns.[82]

Industry Levy

8.76 The Performance Audit Report noted the levy process for the original OJD Program was unattractive to producers, who preferred a transaction based levy collected at a point of sale rather than an annual charge on their costs of production. At the time

[77] *ibid.*, p20
[78] *ibid.*, p5
[79] Whole of Government, Submission No.14, p12-13
[80] *ibid.*, p13
[81] *ibid.*
[82] *ibid.*, p14

the Government was reluctant to introduce a transaction based levy due to legal advice on constitutional limitations.[83]

8.77 The Report also noted industry concerns of the cost of collection charged by the New South Wales Government, which stood at 9.8 per cent relative to total collections, far greater than the average cost of collections over total collections of 0.6 per cent achieved by the Commonwealth's Levies and Revenue Service. Slowness of payment by some producers contributed to cost, due to the need for investigation, follow-up correspondence and threats of recovery action.[84]

8.78 The NSW Farmers' Association highlighted concerns over farmers being left with considerable liabilities due to a Government decision to not compulsorily collect the OJD levy in situations where producers did not voluntarily contribute. According to the Association, this resulted in a deficit in funding of $1.8 million, which was nominated by the Government as an industry debt.[85]

8.79 The Department of Primary Industries explained in a hearing before the Committee that this funding shortfall occurred because the levy was only imposed for two periods in 1999-2000 and 2000-01 and was not used again even though the Program's financial commitments continued. The Government stopped using the levy due to industry disquiet about the funding process and the impact of the drought.[86] As a result such, the industry was left with the financial burden of carrying out approved Program activities. Evidence presented to the Committee indicated this was not communicated effectively to industry members:

> The Department of Primary Industries knew that when the government abandoned the original levy, the fund would have a shortfall. No producer was informed. The department had an obligation to inform producers of this but chose not to.[87]

8.80 The former industry levy scheme was replaced by a system of voluntary contributions to fund OJD initiatives based on livestock transactions. The changes were included in amendments to the *Agricultural Livestock (Disease Control Funding) Act 1998* and commenced in October 2005.[88] The Committee was informed the Government had provided $750,000 to producers owed money under the former Scheme. According to the Department, affected producers were paid 30 per cent of their outstanding claims in December 2005. As funds are collected under the new contributions scheme, remaining debts to producers will be progressively met.[89] The Department estimated it might take two and a half years to completely reimburse these producers, but is hopeful it will be completed more quickly due to a lower than expected reclaim rate.[90] One producer informed the Committee he was still owed $17,500 (of an original total of $25,000), some three years after the debt was incurred. The

[83] Audit Office of New South Wales, 2003*, op cit*, p25
[84] *ibid.*, p25
[85] NSW Farmers' Association, Submission No.4, p12
[86] Ms Regina Fogarty, Transcript of Evidence, 8 August 2006, p11
[87] Mr Gerard Keogh, Submission No.15, p1
[88] NSW Legislative Assembly Hansard, Agricultural Livestock (Disease Control Funding) Bill, 22 June 2004, p9848
[89] Whole of Government, Submission No.14, p13
[90] Ms Regina Fogarty, Transcript of Evidence, 8 August 2006, p13

Committee notes producers in this circumstance can face high interest rate costs and the Department should endeavour to meet these debts as soon as possible.[91]

8.81 The Committee received evidence suggesting some producers were uncertain as to the financial management of the previous OJD program. The NSW Farmers' Association also claimed the financial records for more recent years of the program were not available to industry.[92] The Department maintains it has:

> ...always taken the utmost care to be transparent about how we expend industry funds, whether it be in research and development or exotic pest and disease management.[93]

8.82 The Committee notes the new governance arrangement for the OJD Program includes the appointment of a Fund Administrator for any disease control program "to ensure that appropriate governance arrangements are in place to manage industry funds."[94] But, the Committee is concerned producers may have been unable to readily access information regarding the expenditure of levies for the OJD Program and other animal health issues, particularly when multiple sources of funding are involved.[95]

RECOMMENDATION 20: That the Department of Primary Industries should provide specific information on levies to contributing producers through a separate document, rather than rely on standard audit documents and annual reporting requirements.

Disease Approach

8.83 The Performance Audit Report noted there were no national or state templates for a response to OJD or other emerging animal diseases. OJD was neither classified as a national emergency animal disease or an established endemic disease, which held back the response to the disease. The Report suggested a third approach was necessary to achieve speedy recognition and availability of assistance.[96]

8.84 The Performance Audit Report suggested an Emerging Animal Disease Framework could apply a number of key elements and actions, including:

- Pre-emptive Planning;
- Early Intervention;
- Consultation and Direction;
- Surveillance;
- Risk Management; and
- Resources and Organisation[97]

8.85 The third recommendation of the Performance Audit Report stated:

> Preparedness for and response to a disease threat similar to OJD will improve if some of the principles of the national approach to emergency animal diseases are adopted and adapted.[98]

[91] Mr Gerard Keogh, Submission No.15, p1
[92] NSW Farmers' Association, Submission No.4, p11
[93] Mr Doug Hocking, Transcript of Evidence, 8 August 2006, p16
[94] Whole of Government, Submission No.14, p13
[95] Transcript of Evidence, 8 August 2006, p16; DPI, Answers to Questions on Notice, 25 October 2006, p5, 8
[96] Audit Office of New South Wales, 2003*, op cit*, p4
[97] *ibid.*, pp30-31

8.86 As noted in chapters Two and Four, New South Wales participates in national Emergency Animal Disease Planning. The Committee considers that principles used in Emergency Animal Disease planning should also apply to non-emergency diseases.

8.87 The Whole of Government submission indicates New South Wales has improved its capacity to address emerging disease threats by adopting some of the principles of the national approach to emergency animal diseases. This has been largely through adoption of risk-based planning and biosecurity measures.[99]

8.88 For management of OJD, this has specifically involved the use of Sheep Health Statements, abattoir surveillance and the ABC scoring system.[100]

8.89 According to the Department of Primary Industries, recent incidents of porcine myocarditis and post-weaning multisystemic wasting syndrome – later proved false – indicate New South Wales is "at the forefront of national policy development for threats of emerging diseases."[101] This will be discussed further in Chapter 10.

8.90 The NSW Farmers' Association considers the state should have its own management plan in the event New South Wales alone is infected with an unknown disease that attracts little interest from national animal health bodies.[102] The Committee agrees this approach is appropriate in certain circumstances and notes New South Wales has adopted this strategy when necessary.

Conclusion

8.91 This Chapter has outlined numerous difficulties faced during the introduction of the original program to manage OJD in New South Wales. The original Program was hampered by limited knowledge of the disease at the time and disparate views within the industry as to the best method of managing OJD.

8.92 The Performance Audit Report made findings and recommendations to improve the management of OJD and better prepare New South Wales in the event of other animal disease outbreaks. The Committee has received evidence relating to action taken by the Department in response to each recommendation and is largely satisfied the current OJD Program represents a significant improves on its predecessor. Specific recommendations have been made to enhance the effectiveness of the state's approach to Ovine Johne's Disease.

[98] Audit Office of New South Wales, 2003*, op cit,* p5
[99] Mr Chris Bowdler, Transcript of Evidence, 8 August 2006, p26
[100] Whole of Government, Submission No.14, p14
[101] *ibid.*
[102] NSW Farmers' Association, Submission No.4, p11

8.93 The main ongoing concern relates to the breakdown of trust between sections of the industry and Government bodies. Evidence presented during this inquiry suggests changes made since the cessation of the original Program have improved the relationship to some degree, but further progress must be made in order to maximise New South Wales's preparedness to confront outbreaks of OJD and other diseases.

Chapter Nine - Endemic Diseases

ANIMAL DISEASE CONTROL PROGRAMS

9.1 This Chapter discusses processes for managing endemic animal diseases and pests in New South Wales. Endemic diseases refer to those diseases already present in Australia.

9.2 The submission from the New South Wales Government emphasises the importance of an effective approach to endemic diseases by noting the potential damage caused by a "biosecurity disaster".[1] The submission notes the principal benefit of pest and disease control services is the protection of market access by maintaining Australia's trading position and reputation.[2]

9.3 As discussed in Chapter 2, New South Wales contributes to the development and management of national programs to minimise animal diseases. The New South Wales Government, Rural Lands Protection Boards (RLPBs), private practitioners and livestock owners jointly manage endemic disease programs in this state.[3] The Department of Primary Industries largely delegates implementation of control programs to RLPBs and private practitioners.

9.4 Examples of current major disease or pest control programs include:

- Cattle ticks;
- Cattle tick fever;
- Footrot;
- Johne's disease; and
- Porcine Myocarditis.[4]

Role of Rural Land Protection Boards

9.5 RLPBs have a crucial responsibility in protecting New South Wales from major outbreaks of animal disease, but evidence presented to the Committee indicated there was some confusion and tension with respect to their role. This largely related to a perceived lack of clarity over the role of RLPBs and the challenge of balancing delivery of core animal programs and programs specific to each local area.

9.6 The importance of RLPBs was emphasised by Mr Doug Hocking from the Department of Primary Industries:

> The rural lands protection boards are the front gate, the field service for animal health. They are integrated into the communities... We see them as absolutely critical and whatever we do we have to do in concert with them... we need clear guidelines as to what the roles are, and they are relatively clear at this point.[5]

[1] Whole of Government, Submission No.14, p20
[2] Mr Doug Hocking, Transcript of Evidence, 8 August 2006, p1; Whole of Government, Submission No.14, pp20, 22
[3] Whole of Government, Submission No.14, pp19-20
[4] *ibid.*, p22
[5] Mr Doug Hocking, Transcript of Evidence, 8 August 2006, p8

Memorandum of Understanding

9.7 A Memorandum of Understanding (MOU) between the Department of Primary Industries and the State Council of RLPBs identifies the role of each party in developing and implementing endemic disease programs and stipulates that both parties must agree to animal health programs before implementation.[6] While the Department and State Council of RLPBs were reasonably satisfied with the current MOU, the Committee received evidence suggesting it lacked clarity and needed improvement.

9.8 A submission from the Association of District Veterinarians claimed the MOU was:

> ...poorly written and vague and has created an environment of responsibility shifting and confusion in many aspects of Animal Health.[7]

9.9 Mr Keith Hart, Association of District Veterinarians, explained the protracted nature of preparing the original MOU and suggested a complete revision of the document was needed to make it more effective.[8]

9.10 Mr Steve Orr, Chief Executive Officer, State Council of Rural Lands Protection Boards, indicated the MOU generally functioned well but there was scope to take account of changed circumstances since the MOU was first developed.[9] Mr Orr stated:

> In terms of the operation of that MOU, we are quite happy with the way in which the MOU operates... and we see very much our relationship with the DPI as equal partners. So when it comes to the implementation of major animal health initiatives we are comfortable in the fact that we have a joint arrangement there and that arrangement requires both the State Council and the DPI to come to an agreement on what programs are to be implemented. [10]

9.11 However, Mr Orr also noted:

> We believe it is important, though, that these documents get reviewed. Things do change and we learn from our experiences...[11]

9.12 The Committee is mindful of this evidence and considers it important to update the MOU to clearly define the roles of the Department and RLPBs. The Committee was informed the MOU is currently being reviewed and it is to be hoped these concerns have been considered as part of that process.[12]

National and local programs

9.13 RLPBs must manage responsibility for "core" animal programs and local programs. Core programs are directed at disease or other issues of state or national significance,

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[6] *Memorandum of Understanding between the Director-General, NSW Department of Agriculture and the State Council of the Rural Lands Protection Boards*, 27 September 2001
[7] Association of District Veterinarians, Submission No.7, p5
[8] Mr Keith Hart, Transcript of Evidence, 9 August 2006, p14
[9] Mr Steve Orr, Transcript of Evidence, 8 August 2006, p20
[10] *ibid.*
[11] *ibid.*
[12] Mr Doug Hocking, Transcript of Evidence, 8 August 2006, p7, Mr Steve Orr, Transcript of Evidence, 8 August 2006, p20

including animal disease surveillance reporting, while local programs specifically aim to improve productivity in local livestock industries.[13]

9.14 Evidence presented to the Committee indicated there was sometimes dissatisfaction at a district level regarding the relative importance of these functions. The submission provided by the State Council of the RLPBs noted the interests of the livestock industry vary between national, state, regional and district levels and, therefore, the roles of individual RLPBs can differ markedly.[14]

9.15 Achieving a balance between the two types of program impacts on the effectiveness of RLPBs.[15] Mr Orr indicated it was ideal for Boards to divide their time evenly between local and national programs, but the State Council recognised some districts faced different circumstances, so some slight variation was probably acceptable.[16]

9.16 Mr Orr noted the "grassroots" aspect of Boards:

> One of the really important things about our organisation is the local nature of it, the fact that our directors are local people, local producers, who know the issues, and our staff in many cases are also local people. [17]

9.17 While there are benefits to a strong local focus, Mr Eggleston Director Emergencies and Strategic Response for the Department of Primary Industries commented on the impact of this focus on balancing the Boards' two functions:

> (W)e have to accept this—seeing that they are elected people on the board, they are parochial for their own area. (T)he local programs that they feel should be done sometimes may not be in the best interests of their ratepayers, but they feel (they) have to do those at the expense of some national program…that would probably be of greater benefit globally… It is just getting the time to do both that is the problem.[18]

9.18 Evidence from the State Council of RLPBs also indicated Boards felt separated from the core programs they implemented. Mr Steve Ottaway, Animal Health Manager, stated:

> Where there is a bit of a problem is in the overlap (between core and local programs), and often the producers see this government function that the board has as blurring or becoming merged with their local authority. While boards have some input into deciding what happens at the State and national levels, they are very much decisions that are out of their hands and they are very much the implementers of those decisions rather than the makers, and that leads to some confusion and frustration on the part of producers. [19]

9.19 It is important to note the RLPBs views the undertaking of effective local programs to be significant in achieving producers' participation in broader core programs.[20]

[13] State Council of Rural Lands Protection Boards, Submission No.12, p2; Whole of Government, Submission No.14, p19
[14] State Council of Rural Lands Protection Boards, Submission No.12, p2
[15] *ibid.*; Mr Graeme Eggleston, Transcript of Evidence, 8 August 2006, p8
[16] Mr Steve Orr, Transcript of Evidence, 8 August 2006, p20
[17] *ibid.*, p21
[18] Mr Graeme Eggleston, Transcript of Evidence, 8 August 2006, p8
[19] Mr Stephen Ottaway, Transcript of Evidence, 8 August 2006, p21
[20] State Council of Rural Lands Protection Boards, Submission No.12, p2

Agents of Government

9.20 The Committee notes Board staff are protected by Crown indemnity for the provision of animal health services that are consistent with departmental policy. However, local programs not conforming to this policy provide no such protection. [21] This could limit the freedom of Boards to conduct some local programs.

9.21 The State Council of RLPBs also expressed concern over the capacity of individual Boards to meet government and industry expectations in situations where animal health programs had "...unachievable aims and/or inappropriate strategies or mix of strategies and/or are under-resourced". [22] The original OJD Program was provided as an example. [23]

9.22 The Committee considers it important that the roles of RLPBs and industry in delivering animal health programs be clearly defined and effectively monitored.

Conclusion

9.23 The Committee considers the effectiveness of appropriate state-wide and national endemic diseases control programs can be limited by tension within Boards caused by balancing core and local programs. In negotiating the new MOU, the Department should clarify the respective roles to the satisfaction of both parties.

RECOMMENDATION 21: That the Department of Primary Industries should complete a review of the Memorandum of Understanding and ensure the roles of the Department and Rural Lands Protection Boards are more clearly identified outlined for effective delivery of animal health programs.

RECOMMENDATION 22: That the Department of Primary Industries should ensure the roles and capacities of Rural Lands Protection Boards and industry are effectively monitored to enable assessment of the effectiveness of animal health programs.

[21] Mr Doug Hocking and Mr Graeme Eggleston, Transcript of Evidence, 8 August 2006, p8
[22] State Council of Rural Lands Protection Boards, Submission No.12, p3; and Association of District Veterinarians, Submission No.7, p5
[23] Mr Steve Orr, Transcript of Evidence, 8 August 2006, p20

Chapter Ten - Emerging Diseases

10.1 This Chapter addresses the capacity of the New South Wales Government to address new and emerging diseases which might be previously unknown in either Australia or internationally.

NEW DISEASES

10.2 New pathogens and plant pests appear frequently. Some exotic diseases might appear in Australia for the first time, as OJD did as recently as 1980. Other newly identified diseases have mutated from existing strains which were not as infectious. In the past decade, some new strains of existing animal diseases have developed the ability to infect humans, such as the equine Hendra virus and the Menangle virus which was previously confined to pigs.[1]

10.3 Arguably, the frequency of new diseases has increased in recent years because of human changes to the environment such as deforestation, land clearing and urbanisation. Increased air travel potentially increases the speed with which infectious diseases spread around the world.[2]

Role of Surveillance

10.4 The Committee sought information on the level of preparedness within New South Wales to identify and respond to new diseases and the implications for our trading partners.

10.5 As discussed in Chapter Five, effective surveillance activities are vital to identify and investigate the causes of emerging diseases. New South Wales has both active and passive surveillance strategies and participates in surveillance of the wildlife population. Government laboratories are resourced to conduct the complex investigations required to identify a new disease.

Appropriate Disease Control Strategies

10.6 Once a disease is identified, scientific assessment is required to develop an appropriate disease control strategy. Issues include the level of infectiousness of the disease, whether it can be treated and whether it can affect other species. The Government is empowered to restrict the movement of potentially infected animals while an appropriate disease control strategy in developed.

10.7 The Government has obligations to report to trading partners and notify the international animal health organisation OIE. These groups may choose to impose trade restrictions, but the situation is more favourable if it can be demonstrated that an active control program is in place and the disease can be contained or treated.

[1] Dr Jeremy McAnulty, Transcript of Evidence, 9 August 2006, p9

[2] Dr Alan Dupont "Public Health and International Security" Task Force Report on Public Health and International Security prepared for the Future Summit 2006, the Australian Davos Connection, Brisbane, 11 May 2006, pp4-5

Case study: Porcine Myocarditis

10.8 A recent example of the State Government and industry working together to respond to an emerging disease is the new response strategy for porcine myocarditis, a disease inflaming the heart muscle of pigs, which first appeared in two piggeries in New South Wales in 2003. These properties remain under stock movement controls. Ms Regina Fogarty, Director Extensive Industries Development of the Department of Primary Industries, told the Committee about how the disease was identified in two piggeries and the complex investigation that resulted, calling on all available scientific expertise to test the causes and potential impact of the disease:

> **Ms FOGARTY: ....** This disease was reported to the department by a veterinary practitioner who worked for a large New South Wales piggery. In that piggery they noticed an increase in mortality rates in a certain age group of pigs, and they were little pigs in their first few weeks of life. They had a rapid increase in mortality rates. The pigs that were dying were healthy looking little pigs. They were not not being fed. They could not work out what the issue was. It did not resemble any other common disease of pigs so they started an investigation. When they started the investigation they found some pathological lesions or post-mortem lesions that were not like any of our recognised diseases. These lesions were appearing in a lot of the little pigs so they raised this issue with the department and we undertook an investigation with that piggery. First of all, we ruled out—certainly taking into account this could be a new exotic disease but it did not even resemble any of the well-known exotic diseases that impacted on the international pig industry and it did not resemble any of the known endemic diseases in Australia of pigs.
>
> It was quite an extensive process of ruling out those exotic diseases and endemic diseases, and trying to work out what caused this. It always seems easy when you watch television programs where they diagnose new things very quickly. If you do not know what you are looking for it is very hard to find it. We have one of the world's leading veterinary biologists working in New South Wales DPI, which we are very grateful to have. It has taken him and the team from the Australian Animal Health Laboratory quite a number of months to work out what was the cause of this disease. It has turned out that it is a viral disease of pigs. It is one that has never been identified before in international literature. It is a new virus and we have worked with the piggery to work out a management program within the piggery to reduce its incidence. Over a period of time—and this tends to happen with say viral diseases—you get a massive number of animals infected, they build up an immunity and then build up a resistance to the disease so you start to see a decrease in the clinical science. That is certainly what we have seen in this piggery.[3]

10.9 Ms Fogarty went on to describe the factors that were considered in developing a disease control program:

> Because this piggery had issues with the fact that it was located in New South Wales but it had close links with some Victorian piggeries, we actually work with the Victorian Government, the national government and all the State governments to work out a control program and the quarantining arrangements we needed to put in place. We also worked with New South Wales and Commonwealth human health agencies in case there was some issue to do with this disease—maybe it could affect human beings in some way. There has been no link proven there. A lot of work has gone on to rule out all those things. Currently I think the disease has not gone away. We actually have had diseases—

[3] Transcript of Evidence, 8 August 2006, pp17-18

> sometimes you get a disease that just goes away and you never see it again but in this case I believe there is still a low level of the virus around.[4]

10.10 Later, the Department provided the following information about the status of the disease program:

> Although the precise cause of PMC is unknown, investigations indicate that a specific virus may have a role in the expression of the PMC disease. Further research is being undertaken to determine the link and how the disease spreads through a pig herd. PMC is not known to affect any other animals apart from pigs.
>
> PMC is not a recognised exotic or introduced disease. It is not related to foot and mouth disease (FMD), classical swine fever (CSF), post-weaning multisystemic wasting syndrome (PMWS), porcine reproductive and respiratory syndrome (PRRS) or other known diseases of pigs.
>
> PMC has only been detected in two sites, which remain under stock movement controls. The disease is not known to have spread to any other piggery. Pigs from the affected piggeries have been closely monitored to market weight, following which they have been slaughtered at an AQIS-inspected abattoir. There has been no evidence of unusual disease or effects during ante- and post-mortem inspections.
>
> Key pork customers, both domestically and internationally have been advised about the detection of the disease, as well as animal health authorities in key overseas markets. Humans are not affected by PMC and health authorities in NSW agree that pork remains a safe product.[5]

10.11 The Committee is reasonably confident, on the basis of the evidence before it, that the New South Wales Government has the systems in place to deal with new and emerging threats once they are identified through active or passive surveillance programs.

[4] *ibid.*, p18
[5] DPI, Answers to Questions on Notice, Q.17

Appendix One – List of Submissions

1	Forbes OJD Action Group
2	Minister for The Environment
3	Australian Johne's Alliance (AJA)
4	NSW Farmers' Association
5	WorkCover NSW
6	The Hon John Watkins, Minister for Transport
7	The Association of District Veterinarians of NSW
8	Minister for Local Government
9	Australian Beef Association
10	Minister for Police
11	Minister for Lands
12	State Council of the Rural Lands Protection Boards
13	Animal Health Australia
14	New South Wales Government
15	Mr Gerard Keogh

Appendix Two – List of Witnesses at Public Hearings

Tuesday 8 August 2006

Organisation	Witness(es)
Department of Primary Industries	Mr Doug Hocking Executive Director Biosecurity Compliance and Mine Safety
	Ms Regina Fogarty Director Extensive Industries Development
	Mr Nick Milham Director Policy and Legislation Coordination
	Mr Graham Eggleston Director Emergency and Strategic Response
State Council of Rural Lands Protection Boards	Mr Steve Orr Chief Executive Officer
	Mr Stephen Ottaway Animal Health Manager
Audit Office of New South Wales	Mr Bob Sendt Auditor-General
	Ms Jane Tebbatt, Acting Assistant Auditor-General, Performance Audit Branch
	Mr Chris Bowdler, Performance Audit Leader, Performance Audit Branch
NSW Treasury	Mr Ian Neale, Executive Director Resources and Crown
	Mr Joshua Shrubb, Principal Adviser Natural Resources and Environment

Wednesday 9 August 2006

Organisation	Witness(es)
Australian Johne's Association and Australian Beef Association	Mr John Carter
NSW Health	Dr Jeremy McAnulty Director Centre for Health Protection
Association of District Veterinarians	Mr Keith Hart Camden District Veterinarian