



B.29 [15n]

Ministry
for Primary
Industries:
Preparing for
and responding
to biosecurity
incursions –
follow-up audit



Acknowledgement: Cover photo
by Jackie Bedford, Ministry for
Primary Industries

Ministry for Primary Industries: Preparing for and responding to biosecurity incursions – follow- up audit

Presented to the House of
Representatives under section 20 of
the Public Audit Act 2001.

October 2015

ISBN 978-0-478-44224-3

Contents

Auditor-General's overview	3
Part 1 – Introduction	5
Why we did this follow-up audit	5
How we carried out our follow-up audit	5
The structure of this report	8
Part 2 – Being better prepared	9
Being ready for biosecurity incursions	10
Improving readiness	11
Better preparedness for foot and mouth disease	12
Improving the capability of response staff	17
Improving how the Ministry manages information	18
Part 3 – Responding better	19
Making contracting simpler	19
Strengthening the National Biosecurity Capability Network	21
Part 4 – Ensuring improvement	23
Improving performance measurement	23
Culture of continuous improvement	25
Strengthening public reporting and communication	25

Auditor-General's overview

In February 2013, my Office published *Ministry for Primary Industries: Preparing for and responding to biosecurity incursions* (my 2013 report). My 2013 report looked at how effectively the biosecurity system was preparing for and responding to biosecurity incursions. I found several significant weaknesses in the system.

I made seven high-level recommendations to the Ministry for Primary Industries (the Ministry). My recommendations covered three broad themes. The Ministry was to:

- be better prepared;
- work better with response partners; and
- prepare a set of performance measures.

This year, my staff reviewed the Ministry's progress in addressing my recommendations. This report assesses that progress.

Since my 2013 report, the Ministry has made very good progress with how it prepares for and responds to biosecurity incursions. The Ministry needs to work further to embed improvements, but it has laid the groundwork and is continuing with improvements as it learns from responses to incursions.

Being better prepared

In my 2013 report, I said that the Ministry was under-prepared for potential incursions of some high-risk organisms and had not given a high enough priority to planning.

I also said that the Ministry needed to strengthen how it planned its workforce and to improve capability. It needed a better approach to managing and training staff to ensure that responses are consistent.

The Ministry has prepared a response model to deal with all types of responses. Under this model, the same framework and structures are used regardless of the size and complexity of response. The Ministry's investment in a model that streamlines many processes and allows a consistent approach gives it a solid foundation for responding consistently.

In my 2013 report, I said that the Ministry's planning for an outbreak of foot and mouth disease was inadequate, which resulted in serious weaknesses in the biosecurity system.

The Ministry is now much better prepared for an outbreak of foot and mouth disease than it was in 2013. It continues to work on improving its foot and mouth disease preparedness programme.

In my 2013 report, I said that the current animal health laboratory in Wallaceville was not fit for purpose. I recommended that it be replaced at the earliest possible date to reduce the risk of a breakdown. In June 2015, the Government agreed to spend \$87.2 million on a new bio-containment laboratory to replace the current

laboratory. The new laboratory will further enhance our biosecurity capability and preparedness once it has been built and is operational.

Working better with response partners

In my 2013 report, I said that the way the Ministry works with response partners and reports performance needed to improve.

The Ministry has put in place new and updated arrangements so that it can better respond collaboratively with its partners. We have seen examples of how the improvements have helped the Ministry to respond better, such as in the response to the fruit fly incursion in 2015. We saw improvements in the relationship between the Ministry and AsureQuality Limited, and we saw the first example of industry partners taking part in governance.

A better way of measuring performance

The Ministry has prepared a set of performance measures designed to measure operational activity and the effectiveness and efficiency of its response. It is working to ensure that it has a cycle of continuous improvement, based on lessons learned.

It is too early to assess the effect of this new process. However, when set up, it could help to produce new key performance indicators, which will allow the Ministry to measure performance better.

Culture of continuous improvement

During the past year, my staff observed strong leadership and a focus on delivering effective change at the Ministry. This provided clear direction and enabled resources to be targeted to making significant improvements. The Ministry used the recommendations in my 2013 report as a framework to deliver these improvements but, importantly, has been pragmatic and solution-focused in its approach. My staff also observed a culture of continuous improvement that I consider puts the Ministry in a good position to make further improvements.

I encourage the Ministry to continue to focus its efforts and resources on readiness and to deliver the improvement plan, to ensure that the Ministry is prepared for biosecurity incursions.

I thank staff at the Ministry and its response partners for their help and co-operation during our follow-up audit.



Lyn Provost
Controller and Auditor-General

16 October 2015

Introduction

- 1.1 In this Part, we discuss:
- why we did this follow-up audit;
 - how we carried out our follow-up audit; and
 - the structure of this report.

Why we did this follow-up audit

- 1.2 All New Zealanders benefit from a biosecurity system that works effectively. An effective biosecurity system prevents pest plants, animals, or diseases that would damage our primary production industries, native forests, and human health from becoming established. The Ministry for Primary Industries (the Ministry) is the lead agency in the biosecurity system.
- 1.3 Our February 2013 report *Ministry for Primary Industries: Preparing for and responding to biosecurity incursions* (our 2013 report) focused on what the Ministry does to prepare for biosecurity incursions and how it responds when an incursion takes place.
- 1.4 Our 2013 report identified the need to significantly improve how the Ministry prepares for and responds to biosecurity incursions. We made seven high-level recommendations across three themes:
- being better prepared;
 - responding better; and
 - ensuring improvement.
- 1.5 These recommendations focused on how the Ministry prepares for potential biosecurity incursions, particularly high-risk incursions such as foot and mouth disease.
- 1.6 In 2015, we carried out a follow-up audit to review what progress the Ministry has made to address the recommendations in our 2013 report.

How we carried out our follow-up audit

- 1.7 We expected the Ministry to improve in all aspects that we identified in our 2013 report. We expected the improvements to better prepare the country for biosecurity incursions, particularly foot and mouth disease.
- 1.8 In our follow-up work, we:
- analysed documents about the Ministry's readiness and response work;

- interviewed staff from the Ministry, AsureQuality Limited (AsureQuality),¹ and SPS Biosecurity Limited;²
- spoke to a representative from the Biosecurity Ministerial Advisory Committee; and
- carried out two case studies of recent responses to see how the Ministry is managing responses in light of the improvements it has made.

Case studies

1.9 We chose two markedly different biosecurity incursions to assess the Ministry's performance with different types of responses.

1.10 We chose examples that involved:

- primary risks to the economy, the environment, human health, and socio-cultural values;
- different response environments and types of organisms;
- other agencies and response partners taking part;
- significant costs, public profile, or noteworthiness; and
- different stages of response.

1.11 For the case studies, we interviewed response staff and analysed response documents.

Queensland fruit fly incursion 2015

1.12 We chose the 2015 fruit fly incursion in Auckland because:

- it could significantly affect the economy;
- of its public profile; and
- other response partners took part.

1.13 In February 2015, a Queensland fruit fly (*Bactrocera tryoni*) was discovered in a trap in the Auckland suburb of Grey Lynn. Fruit fly traps are part of the Ministry's surveillance regime for fruit fly species.

1.14 The Queensland fruit fly is a notifiable and unwanted organism that could, if established, become a serious horticultural pest in New Zealand. When the fruit fly find was confirmed, the Ministry acted immediately. The response included Government Industry Agreement partners³ and Auckland Council.

1 AsureQuality was set up in 2007. It is the Ministry's main biosecurity response partner and was described to us as the "operational arm" of the Ministry's biosecurity response services.

2 SPS Biosecurity Limited is a surveillance company that has a contract with the Ministry.

3 The Government Industry Agreement on Biosecurity Readiness and Response is intended to allow primary industries and the Government to work together to make decisions about, and share the costs of, biosecurity preparedness and response work. It came into effect in July 2013.

1.15 After surveillance and other work, the Ministry established that this incursion was an isolated breeding population of Queensland fruit flies. The Ministry, with the help of AsureQuality and the National Biosecurity Capability Network, moved to contain and eradicate the fruit fly through a range of activities in keeping with the Ministry's fruit fly eradication plan. These activities included treating infested properties, increased trapping, movement controls on host fruits and vegetables, fruit collection and slicing, and baiting.

1.16 By October 2015, it appeared that the incursion had been successfully dealt with. However, eradication cannot be confirmed until late 2015.

Brown dog tick incursion 2015

1.17 We chose the brown dog tick response because of the potential risk to human health, the size of the response (which was much smaller than the response to the 2015 fruit fly incursion), and the interagency collaboration involved.

1.18 In January 2015, a dog owner in Canterbury discovered what he thought were ticks on his two pet dogs and took them to his veterinarian. Ticks are not common in Canterbury, and the veterinarian rang the Ministry to report the unusual finding.

1.19 Experts at the Ministry's Plant Health and Environment Laboratory identified all the ticks as adult brown dog ticks. This species of tick is a notifiable and unwanted organism in New Zealand because it can carry and transmit a number of serious exotic diseases that can affect animals and people. None of these diseases are known to be in New Zealand.

1.20 Because the two dogs had been born and lived their whole lives in New Zealand, it was unclear how they could have been bitten by this exotic species of tick. The finding could indicate that an established breeding population of brown dog ticks was present in the country.

1.21 In response, the Ministry launched an investigation to work out where the ticks had come from, how they got in, and how far (if at all) they had spread. During the investigation, the Ministry contacted more than 600 dog owners by telephone or mail. No further brown dog ticks were found, which indicated that the ticks had been in only one house, possibly in the luggage of a visitor from overseas.

1.22 Immature ticks can be just one millimetre long. To ensure that all ticks in the area were eradicated, topical tick treatments were given to the two affected dogs and to 200 dogs who were identified as potentially having contact with these two dogs in the weeks before the ticks were discovered.

- 1.23 The house where the two dogs lived and two properties they had visited in December 2014 were treated to kill any ticks that might be in those buildings. No further brown dog ticks have been reported in Canterbury.
- 1.24 The Ministry is assessing the costs and benefits of different risk reduction measures and response options for brown dog tick.

The structure of this report

- 1.25 In Part 2, we discuss the progress the Ministry has made with our recommendations on being better prepared. This includes what the Ministry has done to better prepare for foot and mouth disease.
- 1.26 In Part 3, we discuss the progress the Ministry has made with our recommendations about contracting with response partners.
- 1.27 In Part 4, we describe the Ministry's efforts to improve its performance measures and public reporting.

Being better prepared

2.1 In this Part, we discuss what the Ministry has done to improve:

- its readiness for biosecurity incursions;
- how it plans responses;
- its preparedness for foot and mouth disease;
- the capability of response staff; and
- how it manages information.

Our recommendations about being better prepared

2.2 In our 2013 report, we made four recommendations about being better prepared. We recommended that the Ministry:

- make all biosecurity planning more realistic by ensuring that plans reflect likely constraints on resources and reflect more accurately the capacity available to deliver them;
- complete response plans for high-risk organisms, including foot and mouth disease, and review them at regular intervals to provide assurance that they are fit for purpose;
- prepare better for a potential outbreak of foot and mouth disease by:
 - building on Exercise Taurus 2012 and developing and delivering a regular programme of foot and mouth disease testing and simulation;
 - completing an early simulation to test the Animal Health Laboratory's foot and mouth disease readiness, which is a potential bottleneck but remains largely untested;
 - reducing the risk of a breakdown in the enhanced bio-containment laboratory by replacing it at the earliest possible date;
 - creating a plan to undertake carcass disposal across a range of outbreak sizes; and
 - creating a plan of how the vaccine could be used, demonstrating that it is practical to do so, and the potential value for money that would be provided from investing in the vaccine; and
- improve its:
 - staff capability by preparing a plan to deliver better response experience, training, and induction;
 - workforce planning so that it has the appropriate number of staff, with the required skills; and
 - creation, use, and storage of information by preparing a formal approach to information governance.

Summary of our findings

- 2.3 The Ministry is better prepared to deal with biosecurity incursions. Although the Ministry needs to do further work to embed some of the improvements, it has laid the groundwork. It has worked sensibly, making changes progressively. It is too soon to assess the overall effect of these changes. However, from what we observed in our case studies, the improvements have enabled effective responses.
- 2.4 The Ministry has created a Single Scalable Response Model that all responses (biosecurity, food, adverse events, or trade) will be delivered to. This means that the same response framework and structures are used regardless of the size of the response. Having a model that streamlines many processes and allows for a consistent approach provides a solid foundation to be able to deliver responses consistently.
- 2.5 The Ministry's readiness for an outbreak of foot and mouth disease has improved a lot since our last report. Because of the scale of the foot and mouth disease project the Ministry has started, there is still work to do. This work remains a focus for the Ministry.

Being ready for biosecurity incursions

- 2.6 The Ministry has made good progress improving its readiness. It continues to embed improvements to allow it to better prepare for and respond to biosecurity incursions.
- 2.7 The Ministry has prepared and adopted a generic response model, the Single Scalable Response Model. This model allows it to respond to all incursions in the same way. The Single Scalable Response Model is a version of the Co-ordinated Incident Management System used throughout government that has been customised for the Ministry's needs.
- 2.8 Having a generic response model makes sense from a planning perspective. It is not practical to have a response plan for every possible incursion, because there are countless possibilities. Therefore, having a generic framework to respond to any incursion is efficient.
- 2.9 After restructuring in 2012, the Ministry aligned its directorates in 2014 to consolidate the Ministry's core functions. As part of the alignment, an Intelligence, Planning and Coordination directorate was formed.
- 2.10 The Intelligence, Planning and Coordination directorate is responsible for preparing and planning, with a focus on capacity building and contingency planning. Creating the Intelligence, Planning and Coordination directorate has

enabled the Ministry's "business-as-usual" readiness work to continue during responses because the Ministry has dedicated more resources to readiness.

- 2.11 As part of the alignment, the Ministry formed governance boards to correspond with the new branch structures. The purpose of these boards is to drive "whole of system" decision-making and support collaboration throughout the Ministry.
- 2.12 The Biosecurity Board is responsible for governing, leading, overseeing, and co-ordinating the biosecurity system. The board is made up of two deputy directors-general and other directors from throughout the Ministry. It receives, and makes decisions about, biosecurity strategies, plans, priorities, and projects. Its aim is to improve co-ordination throughout the biosecurity system.
- 2.13 The Biosecurity Board is in its infancy. Early improvements by the board include creating key performance indicators and new performance measures that cover the entire biosecurity system.
- 2.14 The Ministry has created and prioritised a detailed work programme of biosecurity readiness. It has set up a dedicated group⁴ to oversee the successful completion of the readiness work programme. It is too soon to assess the effect the board has had. However, its existence is evidence that the Ministry continues to focus on readiness.
- 2.15 In our view, by using Government Industry Agreements and the National Biosecurity Capability Network, and through an improved relationship with its main response partner, AsureQuality, the Ministry is collaborating more effectively with industry response partners. We saw evidence of this when we looked at the response to the 2015 fruit fly incursion.
- 2.16 The Ministry told us that it is also working more effectively with government partners through the Official Committee for Domestic and External Security Co-ordination forum.

Improving readiness

- 2.17 The Ministry has completed response plans for some high-risk organisms and continues to increase the number of completed response plans.
- 2.18 Since our last audit, the Ministry has increased the number of response plans and created annual targets for increasing the number of plans. In 2013/14, the Ministry created 12 new response plans for high-risk organisms.
- 2.19 The new performance measures (see Part 4) require the Ministry to publicly report its progress in putting the new measures into effect. This shows the Ministry's commitment to improving readiness generally.

4 This "Readiness Board" group acts as a steering group to ensure that readiness work takes place in all of the Ministry's directorates.

- 2.20 The Ministry is putting in place a way of systematically ensuring that it reviews response plans regularly, which will include a traffic light status system to ensure that the plans are regularly reviewed. It is also working on a repository for the plans.
- 2.21 We observed a culture of continuous improvement at the Ministry. For example, the Ministry was feeding lessons it learned from responses back into the response plans.
- 2.22 The response to the 2015 fruit fly incursion is a good example of the Ministry's readiness and continuous improvement in action. The Ministry had a response plan prepared for a fruit fly incursion. In recent years, the Ministry and AsureQuality have responded to several fruit fly incursions. The Ministry updated its response plan to include the lessons learned from the earlier responses. In our view, this contributed to the effectiveness of the 2015 response.

Better preparedness for foot and mouth disease

- 2.23 Through the foot and mouth disease preparedness programme, the Ministry is investing to ensure that the country is better prepared for a potential outbreak of foot and mouth disease. The Ministry has identified interim measures that would allow it to respond to an outbreak of foot and mouth disease in the short term. It continues to prioritise the work it needs to do to ensure that New Zealand is well prepared.
- 2.24 The Ministry's preparedness programme for foot and mouth disease includes projects that specifically address our 2013 recommendations. The programme includes a structured programme of testing and simulation, improving the Animal Health Laboratory's readiness, replacing the bio-containment laboratory, and preparing plans for carcass disposal and vaccination.
- 2.25 The Ministry continues to:
- work on the plans for testing how to communicate about an outbreak of foot and mouth disease and preparing specific policies; and
 - consult with industry and stakeholders about the operational planning aspects of its response to an outbreak of foot and mouth disease. It is working on including animal sector partners in the Government Industry Agreements.

Collaborating with others

- 2.26 A Trans-Tasman Action Plan commits New Zealand and Australia to working collaboratively when preparing for an outbreak of foot and mouth disease. The Australia and New Zealand Consultative Group on Biosecurity Co-operation and

the Nepal foot and mouth disease training programme are examples of the Trans-Tasman Action Plan in effect.

- 2.27 The many benefits of this collaboration include:
- taking part in each other's testing and simulation exercises – New Zealand veterinarians took part in foot and mouth disease training in Nepal;
 - sharing information about readiness work; and
 - working collaboratively to prepare and refine animal disease models.

Structured programme of testing and simulation

- 2.28 The Ministry has prepared a structured programme of testing and simulation that is evolving to cover the different aspects of a response to foot and mouth disease.
- 2.29 As part of the programme, the Ministry has set up a project that deals specifically with training exercises. As part of this project, the Ministry:
- appointed an Exercise Programme Manager;
 - prepared an exercise programme;
 - completed exercises;
 - chose staff to attend conferences and train in international good practice;
 - reviews its exercises and surveys participants; and
 - scheduled an exercise for December 2015 that will include participants from government and industry.

Improving the Animal Health Laboratory's readiness

- 2.30 In June 2013, the Ministry prepared the Animal Health Laboratory Foot-and-Mouth Disease Preparedness Plan (the preparedness plan) to better understand and improve the laboratory's readiness and capabilities.
- 2.31 In 2014, the Ministry asked external consultants to review the preparedness plan and to simulate the laboratory's processes and resources to model its capacity. In 2015, the Ministry reviewed and updated the preparedness plan.
- 2.32 The laboratory's capacity would be a bottleneck during a medium-to-large outbreak of foot and mouth disease. This will remain so until it is replaced with the new laboratory.
- 2.33 The Ministry's Animal Health Laboratory Foot-and-Mouth Disease Response Preparedness and Action Plan (the action plan) identifies the actions needed to complete the preparedness plan (including some resourcing matters). The action

plan also identifies expected bottlenecks to be resolved before a foot and mouth disease response.

- 2.34 The Ministry has developed a register of all of the actions identified in the action plan. The register includes target dates for high priority actions. A project team has been formed from existing resources, and progress towards lower priority actions will be followed up when other investigation and response work allows.
- 2.35 The project team is required to update its progress every month. However, progress depends on what response work the team has at the time. Limited resources and a fluctuating work load make fixing a schedule for this work difficult.
- 2.36 The Ministry has taken steps to follow the action plan. The Ministry has identified resources, such as extra laboratory staff and equipment, it can draw on if and when extra short-term capacity is needed.
- 2.37 Additional trained laboratory staff will be required in an outbreak of foot and mouth disease. The Ministry has identified potential sources of laboratory staff in the Ministry and in external agencies in New Zealand and overseas.
- 2.38 The Ministry is researching new technologies that will make a large response more efficient. It is looking to buy high-throughput equipment using its annual capital budget. Animal Health Laboratory staff have visited two high-throughput laboratories to learn about processes and technology for testing large numbers of samples.
- 2.39 To improve its overall readiness, the Animal Health Laboratory has carried out work such as proficiency testing.⁵
- 2.40 Work is under way to overhaul the Laboratory Information Management System. This is an information management system to improve laboratory reporting and data management.

Replacing the bio-containment laboratory

- 2.41 In June 2015, the Government agreed to spend \$87.2 million on a new bio-containment laboratory to replace the current laboratory in Wallaceville. The new laboratory will be the most advanced facility of its kind in the country. It is expected to be operational in 2018.
- 2.42 In our 2013 report, we identified the current laboratory as a bottleneck during an emergency response. The laboratory has frequent operational failures and is not fit for purpose. We recommended that it be replaced at the earliest possible date to reduce the risk of a breakdown.

⁵ Proficiency testing involves different analysts carrying out the same analyses on the same samples and comparing results.

- 2.43 In its business case to Cabinet, the Ministry stated:
- The existing laboratory is an ageing, inadequate and increasingly obsolete building with systems that are becoming less reliable and more expensive to maintain. International standards and regulations for these laboratories have also evolved since it was built and the facility would not meet current standards or future requirements if it were constructed today. This is putting New Zealand's public health, biosecurity capability and trade at risk and needs to change.*
- 2.44 Because diseases can spread quickly, the Ministry needs to be able to respond quickly. The Ministry says that “having a high-containment laboratory is about being prepared”. It also says that:
- Exotic and high impact diseases are investigated frequently, so laboratory testing for these diseases occurs almost every day. Safely and rapidly confirming the absence or presence of that disease with sophisticated diagnostic tests will help us clearly identify what is present and if a high risk disease is identified, confirm where the infection is, control the spread of the disease, and protect agriculture and human health.⁶*

Plans for disposing of carcasses

- 2.45 The Ministry has made good progress creating plans for disposing of carcasses during an emergency response to foot and mouth disease. It is preparing for carcass disposal during the first phase of a response regardless of the size of the outbreak.
- 2.46 A plan has been prepared for disposing of carcasses during the first days to weeks of any outbreak. This plan was made with input from industry and regional council colleagues and is considered to be the primary plan.
- 2.47 For a larger and longer-term response, the primary plan would need to be adapted to suit the individual characteristics of the response. This would need to be done during the response because these plans depend on the individual characteristics of the outbreak, such as the location of the outbreak, the time of year, and the number of animals involved.
- 2.48 The Ministry continues to work with stakeholders to ensure that the primary plan for carcass disposal could be rapidly implemented in any region in the country.
- 2.49 Progress includes preparing a process for deciding which disposal method is most suitable for any given infected property, presenting all the factors that need to be considered when making those decisions, and agreeing which agencies would make those decisions.

6 See the National Biocontainment Laboratory project page in the Law and Policy section of the Ministry for Primary Industries website, www.mpi.govt.nz.

- 2.50 Creating the primary plan is complex and requires the Ministry to work with a large number of other agencies and organisations. The Ministry has had some problems collecting the data it needs to inform decisions about carcass disposal. For example, national data sets are lacking for water table heights and the boundaries of land of Maori significance (including sacred sites), and there are resource management matters arising from Resource Management Act constraints.
- 2.51 The Ministry told us that it expects to complete the current phase of carcass disposal planning by December 2016. After that, the plan will need to be regularly reviewed against the national requirements, international best practice guidelines, and opportunities emerging from new technologies.

Preparing plans for vaccination

- 2.52 The Ministry has worked out when it is economically viable to use a vaccine during an outbreak of foot and mouth disease. It continues to work with industry and stakeholders on the operational planning aspects of deploying the vaccine.
- 2.53 The Ministry has put much work into preparing an agreed vaccination policy, including getting input from the Ministry's Market Access Teams into the implications of vaccination. The Ministry has worked closely with industry to ensure that the vaccination policy aligns with the World Organisation for Animal Health return to trade policy.
- 2.54 An interim vaccination policy has been prepared, which requires sign-off from Cabinet. The final policy will feed into an overall foot and mouth disease response strategy to be presented to Cabinet in 2016/17.
- 2.55 The Ministry obtained an economic impact assessment report and concluded that vaccines would be appropriate in a large outbreak but not in a small outbreak. There has also been work looking at the benefits of using the vaccine.
- 2.56 A vaccination operational plan includes confirming how the vaccine will be obtained and used if required during an outbreak of foot and mouth disease. We have evidence that the Ministry intends to review this plan as other aspects of foot and mouth disease readiness develop.
- 2.57 The Ministry has had a test run of getting the vaccine from France, through the border, to the organisation that will issue the vaccine. The Ministry has tested the devices that dispense the vaccine. Problems identified in the "dry run" have been fed back into the Ministry's operational plans.
- 2.58 The Ministry has also worked closely with industry on the vaccine policy and market access implications.

Improving the capability of response staff

- 2.59 The Ministry has prioritised and made significant progress in its work to improve the capability and capacity of response staff. It has scheduled further work on this.
- 2.60 The Ministry's new Intelligence, Planning and Coordination directorate (see paragraph 2.9) promotes organisational alignment and is responsible for building capacity and contingency planning.
- 2.61 The Intelligence, Planning and Coordination directorate is completing a three-year programme of work called "Delivering people capability and capacity" that includes seven projects in varying stages of completion. These projects are intended to identify and strengthen the capability and capacity of people and systems for responses.
- 2.62 Under the Single Scalable Response Model, all responses are delivered in the same way and staff are trained to use the model. The Ministry told us that, since November 2014, it has trained more than 300 staff members to use the model.
- 2.63 The Ministry:
- is focusing on improving staff members' skills, including providing mentoring and opportunities for development;
 - has prepared a people capability and career pathway for quarantine and compliance officers; and
 - has improved some aspects of training programmes, such as National Biosecurity Capability Network training.

Improving staff capability and capacity

- 2.64 The Ministry has improved its workforce planning, particularly since March 2014. Its forward-looking strategic focus to its workforce planning is aimed at ensuring that the required skills and capacity are available.
- 2.65 The Ministry has a tool that allows it to identify the improvements in workforce planning it needs. Government Industry Agreements allow the Ministry to use industry resources for responses. This can help with planning.
- 2.66 The National Biosecurity Capability Network is a network of people and resources that can be called on to deal with biosecurity incursions at short notice. Since our last audit, the network has improved the speed and efficiency of deploying members who have the required and appropriate skills for the particular response.

- 2.67 The Co-ordinated Incident Management System and the Single Scalable Response Model identify what roles will be needed in a response. This helps to plan a response.
- 2.68 Managers have prepared and validated a database of response experience, technical skills, and training for those working in responses throughout the Ministry. This database allows the new Learning Management System to be tested against response requirements. Over time, this will provide a real-time view of current capability and gaps in response for line managers, workforce planners, and response managers.
- 2.69 The Ministry:
- has improved recruitment processes by strengthening the internal recruitment team and taking a more stringent approach during the recruitment selection process; and
 - is managing staff performance more consistently, meaning that it can manage staffing more effectively by improving staff capability, competence, and performance.

Improving how the Ministry manages information

- 2.70 The Ministry has improved the way it manages information. The Intelligence, Planning and Coordination directorate helps to collate and share information from different systems. The Ministry has also set up an information governance board to help it to rationalise and better integrate information.
- 2.71 The Ministry does not have an integrated information system. It is currently reviewing its information management needs. The information governance board was set up to provide governance and oversight of the information systems it uses or may require.
- 2.72 The Ministry has prepared an information systems strategic plan that runs to 2030. This plan requires in-depth analysis of business requirements and the business systems that support current demands. The plan also requires the Ministry to identify possible options for managing information.
- 2.73 The Ministry has prepared a map of information systems and solutions for addressing emerging business requirements throughout the Ministry. It has budgeted \$2 million for enhancements to its information management system.
- 2.74 The Ministry is also working to improve other current systems, such as the Laboratory Information Management System.

Responding better

- 3.1 In this Part, we discuss:
- how the Ministry has simplified contracts; and
 - improvements to the National Biosecurity Capability Network.

Our recommendations about responding better

- 3.2 In our 2013 report, we made two recommendations about responding better. We recommended that the Ministry:
- make contracting simpler, faster, and more efficient for response partners, and consider the use of a panel contract arrangement for procuring response services from Crown research institutes; and
 - make changes to the Biosecurity Response Services contract and the National Biosecurity Capability Network to reflect its new organisational structure and operating environment.

Summary of our findings

- 3.3 The Ministry has put in place some important new and updated arrangements so that it is in a better position to respond collectively with its partners. The 2015 fruit fly response is an example of how the improvements have helped the Ministry to respond better. This shows improvements in the relationship between the Ministry and AsureQuality. We saw the first example of the industry partners being involved in governance.

Making contracting simpler

- 3.4 The Ministry has simplified its Biosecurity Response Services contract with its main response partner (AsureQuality) and continues to iron out remaining complexities in the contract when they arise.
- 3.5 In November 2013, the Ministry reviewed and amended the Biosecurity Response Services contract. It is considering further refinements, with a view to clarifying pricing clauses. The Ministry and AsureQuality have agreed to review the Biosecurity Response Services contract every year.
- 3.6 To improve the Biosecurity Response Services contract, the Ministry has:
- updated it to reflect the Ministry's new operating environment;
 - been more specific about what it expects of AsureQuality;
 - simplified the pricing structure;
 - reworded and simplified complex paragraphs;
 - clarified roles and responsibilities; and
 - removed ambiguities.

Contract panel arrangements

- 3.7 In our 2013 report, we recommended that the Ministry make contracting simpler, faster, and more efficient for response partners and consider using a panel contract arrangement for procuring response services from Crown research institutes.
- 3.8 The Ministry considered using a contract panel arrangement for procuring response services from Crown research institutes but concluded that such an arrangement was not appropriate because:
- Crown research institutes offer services that are so diverse that the scope of a contract panel would probably be too large and difficult to manage;
 - Crown research institutes account for only 12% of spending on response services; and
 - having a panel contract arrangement for response services might be detrimental to contractors that are not Crown research institutes.
- 3.9 The Ministry has adopted a panel arrangement for surveillance work, but this is not part of the Ministry's response work.

Customising contracting arrangements for response services

- 3.10 The Ministry has master agreements with several Crown research institutes. When the Ministry contracts with a Crown research institute, it prefers to use terms and conditions agreed in the master agreements.
- 3.11 When there is a response, AsureQuality will contact a National Biosecurity Capability Network member for help. A standard employment contract that sets out pay rates and costs will be signed. This contract will be for that response only. We did not review these contracts, because we did not audit AsureQuality as part of our follow-up audit.
- 3.12 Some response partners insist on contracting directly with the Ministry. The Ministry is flexible with this. For example, the Ministry had six different memorandums of understanding with Maritime New Zealand. It now has one main memorandum of understanding, with the other memorandums attached as schedules.

Strengthening the National Biosecurity Capability Network

- 3.13 This Ministry is continually improving the National Biosecurity Capability Network and reviewing improvements. The network is now more able to fulfil its objective of allowing the required capability to be called on when needed.
- 3.14 Improvements made to the National Biosecurity Capability Network include the Ministry's permanently appointing a manager to work closely with AsureQuality to oversee the preparing, strengthening, and testing of the network, and build relationships with members. The Ministry has increased the membership of the National Biosecurity Capability Network, with a focus on the quality, not quantity, of members. The National Biosecurity Capability Network now includes 149 organisations and has more than 60,000 individual members.
- 3.15 Every year, as part of the Biosecurity Response Services contract, AsureQuality tests the quality of the data in the National Biosecurity Capability Network system and the availability of participants.
- 3.16 However, some complexities, such as standardising rates, need to be worked through. The Ministry told us that one project in the Biosecurity Response Services 2015/16 business plan is to complete research about standardising commercial rates for deploying organisations in a response.
- 3.17 This is a large task because of the need to identify operational expert roles and "ground-level" roles, such as labouring roles, and identify rates for the appropriate skills. This was one of the priority improvements identified in the 2015 fruit fly response that could make contracting at short notice more efficient.
- 3.18 New Zealand is the only country to have a system such as the National Biosecurity Capability Network. The 2015 fruit fly response provides a good example of the network working in practice. Ninety-three National Biosecurity Capability Network members were mobilised within the first 72 hours of the response.

Working with Government Industry Agreement partners

- 3.19 We discussed Government Industry Agreements in our 2013 report. However, we did not assess it because it did not come into effect until July 2013. We did not specifically look at the Government Industry Agreement in this follow-up audit. However, we have received some information about industry partners signing up to take part in responses.
- 3.20 We understand that, from 1 July 2017, responses will have a cost-sharing agreement as part of the Government Industry Agreement with the industry

partners. This will save money and is part of working towards the idea of a co-ordinated national approach to biosecurity.

- 3.21 We have observed the Ministry's efforts to induct Government Industry Agreement partners into the response process to prepare for the response cost-sharing agreements. The Government Industry Agreement is intended to add industry knowledge to readiness and response work, build networks and capability, and promote forward-thinking.
- 3.22 The response to the 2015 fruit fly incursion was the first time Government Industry Agreement industry partners were involved on a response governance board as decision-makers for a major response. The feedback from industry has been largely positive. The cost-sharing agreements do not come into effect until 2017. However, involving industry partners now allows relationships to build and strengthen before the agreements come into full force.

Ensuring improvement

- 4.1 In this Part, we discuss the Ministry's:
- improvements to how it measures performance;
 - culture of continuous improvement; and
 - strengthening of its public reporting and communication.

Our recommendations about ensuring improvement

- 4.2 In our 2013 report, we made one recommendation about ensuring improvement. We recommended that the Ministry prepare a set of performance measures to:
- include operational activity, effectiveness and efficiency of response, and individual staff performance;
 - inform continuous improvements to the effectiveness and efficiency of its preparedness and response activities; and
 - report publicly on its effectiveness and efficiency.

Summary of our findings

- 4.3 The Ministry has prepared a set of performance measures in four categories. These measures are designed to measure the operational effectiveness and efficiency of responses. Work continues to ensure that the Ministry has a cycle of continuous improvement, based on lessons learned.
- 4.4 The Ministry told us that when the performance measures are up and running, they will allow the Ministry to produce key performance indicators to help improve how it measures performance.

Improving performance measurement

- 4.5 The Ministry has prepared a set of performance measures in four categories: service performance, contract performance, management performance, and system performance. These measures are designed to measure operational activity and the effectiveness and efficiency of responses.
- 4.6 In its four-year plan and annual plan, the Ministry agrees to deliver service performance measures. It reports against them in its annual report.
- 4.7 Contract performance measures relate to expectations of performance that the Ministry has agreed with contractors, such as AsureQuality and the providers to the surveillance programme.
- 4.8 The Ministry has management performance measures for each branch. These are reported in confidence to the Director-General each month. The Operations branch has a business plan that includes overall performance measures.

- 4.9 Each directorate has business plans that contain their own performance measures, which feed in to the service and management measures.
- 4.10 System performance measures are outcome and system measures for each layer in the biosecurity system (see Figure 1). The Biosecurity Board (see paragraph 2.12) is working on a “system scan” approach that will allow the Ministry to measure and test each layer’s effectiveness and efficiency. The starting point for this is allocating funding and resources to each layer.

Figure 1
Layers of the biosecurity system

International plant and animal health standards Developing international standards and rules under the World Trade Organisation’s Sanitary and Phytosanitary Agreements.
Trade agreement and bilateral arrangements Negotiation, agreements, and processes for future biosecurity co-operation and trade.
Risk assessment and import health standards Identification of risk and specification of requirements for people and goods coming into New Zealand.
Border interventions Educating and auditing to encourage compliance. Inspecting to verify compliance, and taking action to manage non-compliance.
Surveillance General and targeted programmes to detect harmful pests and diseases.
Readiness and response Regular testing of the biosecurity system’s capability to respond. Responding to detected harmful pests and diseases.
Pest and disease management National, regional, and industry actions to manage established pests and diseases.

Source: Ministry for Primary Industries.

- 4.11 Creating the system performance measures is a positive step, but there has been no public communication about them yet. Their effectiveness will be tested when the Ministry starts reporting publicly against them.
- 4.12 The Ministry has created a tool that can measure the effectiveness and efficiency of small to medium responses. It is designing a tool that can adequately measure large responses. Work continues to prepare specific measures for roles and teams.

Culture of continuous improvement

- 4.13 We observed that the Ministry has a culture of continuous improvement throughout the organisation.
- 4.14 The Ministry has a performance measure called “Demonstrated adoption of previous recommendations leading to faster, more effective responses, with errors previously identified not repeated”. This measure refers to recommendations in our 2013 report and recommendations in other high-level reviews, such as the Performance Improvement Framework Review.
- 4.15 The Ministry has created a Readiness Recommendations Spreadsheet to be the “single source of the truth” for actions that have been proposed or taken to address recommendations made. These cover a broad range from minor to more significant, and the Ministry appears to prioritise these according to their importance.
- 4.16 Work is under way to reshape the lessons-learned process into a continuous improvement methodology that will be governed through the National Operations Centre. In the end, this process will operate as a continuous loop of collection and analysis of lessons learned from responses. When set up, this process will produce new key performance indicators to provide better measurement.
- 4.17 Response staff involved in the two case studies were positive about the process for debriefing them and applying the lessons learned in future response planning.

Strengthening public reporting and communication

- 4.18 The Ministry continues to improve its performance measurement framework and is reporting better information about how ready it is to respond. It recognises that it has to improve further. It is working with its communications team and the Biosecurity Ministerial Advisory Committee to enable it to report about responses more effectively and efficiently.
- 4.19 The Ministry’s website has information about how the Ministry sets its objectives and reports on its performance. The website includes a link to its 2030 strategy, which includes a section on measuring performance. The Ministry’s annual report includes performance information on the Ministry’s biosecurity services and its intended outcomes.

- 4.20 The Ministry reports on generic performance indicators, such as the number of response plans and exercises it has completed. The Ministry has also created a framework for measuring small and medium responses and is working on a framework for measuring large responses.
- 4.21 The Ministry has told us that it is in discussions with the Ministerial Biosecurity Advisory Committee about marketing and planning how it can better communicate with the public.

Publications by the Auditor-General

Other publications issued by the Auditor-General recently have been:

- Reviewing aspects of the Auckland Manukau Eastern Transport Initiative
- Queenstown Lakes District Council: Managing a conflict of interest in a proposed special housing area
- Annual Report 2014/15
- Service performance reporting: Results of the annual audits of TEIs for the year ended 31 December 2014
- Request for inquiry into the regulation of the ancient swamp kauri industry
- Kaipara District Council: The Auditor-General's decision on requests to make a report under section 44 of the Local Government Act 2002
- Consulting the community about local authorities' 10-year plans
- New Zealand Police: Enforcing drink-driving laws – Progress in responding to the Auditor-General's recommendation
- Response to queries about recovery from the Canterbury earthquakes
- Annual Plan 2015/16
- Reflections from our audits: *Service delivery*
- Being accountable to the public: Timeliness of reporting by public entities
- Effectiveness of governance arrangements in the arts, culture, and heritage sector
- Health Promotion Agency – Katherine Rich – Possible conflicts of interest
- Whānau Ora: The first four years
- Inland Revenue Department: Governance of the Business Transformation programme
- Auckland Council: How it deals with building consents

Website

All these reports, and many of our earlier reports, are available in HTML and PDF format on our website – www.oag.govt.nz.

Notification of new reports

We offer facilities on our website for people to be notified when new reports and public statements are added to the website. The home page has links to our RSS feed, Twitter account, Facebook page, and email subscribers service.

Sustainable publishing

The Office of the Auditor-General has a policy of sustainable publishing practices. This report is printed on environmentally responsible paper stocks manufactured under the environmental management system standard AS/NZS ISO 14001:2004 using Elemental Chlorine Free (ECF) pulp sourced from sustainable well-managed forests. Processes for manufacture include use of vegetable-based inks and water-based sealants, with disposal and/or recycling of waste materials according to best business practices.

Office of the Auditor-General
PO Box 3928, Wellington 6140

Telephone: (04) 917 1500
Facsimile: (04) 917 1549

Email: reports@oag.govt.nz
Website: www.oag.govt.nz