

Chapter 2

Australia's biosecurity regime and the white spot outbreak

2.1 This chapter considers the key principles that underpin Australia's biosecurity regime. It explores the relationship between the Commonwealth, states and territories in managing Australia's biosecurity and considers the application of Australia's biosecurity regime to the outbreak of WSD in the Logan River area.

Australia's biosecurity regime

2.2 According to DAWR:

Biosecurity is the management of risks to the economy, the environment and the community, of animal and plant pests and diseases entering, emerging, establishing or spreading.¹

2.3 DAWR noted that an effective biosecurity system is critical to sustaining a productive agricultural sector, protecting the environment and maintaining export markets.² According to a 2008 independent review, Australia's biosecurity regime:

...seeks, through careful management, to minimise the risk of the entry, establishment or spread of exotic pests and diseases that have the potential to cause significant harm to people, animals, plants and other aspects of Australia's unique environment.³

2.4 Managing Australia's biosecurity is a responsibility that is shared between the Australian, state and territory governments. To coordinate and implement national action on biosecurity issues, DAWR noted that:

...well-established relationships and national arrangements are in place between the Australian, state and territory governments, relevant industry associations and members and other stakeholders.⁴

2.5 The Australian Government manages biosecurity risks and emergencies under the *Biosecurity Act 2015* (Biosecurity Act). The Act provides the legislative framework to manage Australia's biosecurity and sets out the powers that can be exercised by officials and the requirements of those subject to regulation. According to DAWR, the Biosecurity Act enables the targeting of non-compliant behaviour or activities while also reducing the burden on those that are compliant. It contains a range of enforcement options including infringement notices, civil penalties, enforceable undertakings and criminal sanctions.

1 Department of Agriculture and Water Resources, *Submission 9*, p. 3.

2 Department of Agriculture and Water Resources, *Submission 9*, p. 3.

3 Roger Beale, *One Biosecurity. A Working Partnership*. The Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government, 30 September 2008, p. xiii, https://web.archive.org/web/20091024200423/http://daff.gov.au/_data/assets/pdf_file/0010/931609/report-single.pdf (accessed 29 May 2017).

4 Department of Agriculture and Water Resources, *Submission 9*, p. 14.

2.6 The Biosecurity Act also contains a range of measures to manage the public health risk posed by serious communicable diseases and allows for the management of biosecurity risks in a manner that is consistent with Australia's international obligations.⁵ This includes obligations under the World Trade Organisation (WTO) *Agreement on the Application of Sanitary and Phytosanitary Measures 1994* (SPS Agreement), the World Health Organization *International Health Regulations 2005* (International Health Regulations), and the *Convention on Biological Diversity 1992* (Biodiversity Convention).

2.7 The Biosecurity Act provides powers to manage unacceptable levels of biosecurity risk. It defines an appropriate level of protection against biosecurity risks as a 'high level of sanitary and phytosanitary protection aimed at reducing biosecurity risks to a very low level, but not to zero'. Provisions of the Act deal with managing biosecurity risks regarding goods brought into Australian territory. This includes assessing the level of biosecurity risk through Biosecurity Import Risk Analysis (BIRA) pre-border and at-border.

2.8 DAWR is the agency responsible to conduct BIRAs and other risk analyses in accordance with the Act and the Biosecurity Regulations 2016. Under a BIRA, risk is determined by combining the likelihood of the entry, establishment and spread of a disease or pest with the consequence. A BIRA will consider the whole of the risk pathway from the identified hazard to the unwanted outcome or consequence.⁶ According to DAWR:

BIRAs assist the department in considering the level of biosecurity risk that may be associated with the importation of goods into Australia. If the biosecurity risks do not achieve the appropriate level of protection (ALOP) for Australia, risk management measures are proposed to reduce the risks to an acceptable level. If the risks cannot be reduced to an acceptable level, the goods will not be imported into Australia, until suitable measures are identified.⁷

2.9 The outcome of a BIRA or IRA may result in particular goods, or a class of goods being prohibited from entry, suspended from entry, or permitted to enter with or without conditions. In accordance with the 2009 prawn IRA, risk management measures, including a range of import conditions, were imposed to reduce the risks associated with WSSV.

5 Department of Agriculture and Water Resources, *The Biosecurity Act 2015*, <http://www.agriculture.gov.au/biosecurity/legislation/new-biosecurity-legislation> (accessed 30 May 2017).

6 Department of Agriculture and Water Resources, *Biosecurity Import Risk Analysis Guidelines 2016: managing biosecurity risks for imports into Australia*, 2016, p. 2, <http://www.agriculture.gov.au/SiteCollectionDocuments/bira-guidelines-2016.pdf> (accessed 8 June 2017).

7 Department of Agriculture and Water Resources, *Biosecurity Import Risk Analysis Guidelines 2016: managing biosecurity risks for imports into Australia*, 2016, p. 1.

2.10 On 6 January 2017, the Director of Biosecurity issued a determination to suspend the importation of uncooked prawns for a period of six months. The determination was made in accordance with subsection 182(1) of the Biosecurity Act, which provides that specific goods, or a class of goods, must not be imported into Australia for a specific period of time.⁸

2.11 The Biosecurity Act also provides for a statutory role of an Inspector-General of Biosecurity (IGB) who reviews the performance of functions and exercise of power by biosecurity officials under the Act. The IGB is responsible to provide independent assessment of Australia's biosecurity arrangements through evaluation and verification. As part of this role, the IGB may review the performance of functions and exercise of powers by the Director of Biosecurity and make recommendations for overall system improvement.

2.12 On 17 February 2017, the IGB, Dr Helen Scott-Orr commenced a review into biosecurity issues surrounding the WSD outbreak. The review will focus on the circumstances leading to the 6 January 2017 suspension of uncooked prawn imports into Australia and the biosecurity considerations relevant to future trade in uncooked prawns.⁹

Core principles of the Act and risk-based approach

2.13 While Australia's biosecurity system is complex, a 2008 independent review of Australia's quarantine and biosecurity arrangements (the Beale review) noted that there were three core principles that underpinned Australia's regime:

- an integrated biosecurity continuum involving risk assessment and monitoring, surveillance and response pre-border, at the border and post-border;
- risk assessment reflecting scientific evidence and rigorous analysis; and
- shared responsibility, between the Commonwealth and state governments, and between businesses and the general community.¹⁰

2.14 The 2008 Beale review found that Australia had historically protected its shores from exotic pests and diseases through a quarantine system that used isolation, segregation, disinfection and measures to kill insects once people or products of concern were identified at the border.¹¹ It argued that a new approach was needed

8 Biosecurity (Suspended Goods – Uncooked Prawns) Determination, 6 January 2017.

9 Inspector-General of Biosecurity, 'Inspector-General of Biosecurity to review the current prawn issue', *Media Release*, 17 February 2017, <http://www.igb.gov.au/Pages/IGB-review-current-prawn-issue.aspx> (accessed 6 June 2017).

10 These principles were enunciated in the Nairn Report. Roger Beale, *One Biosecurity: A Working Partnership*. The Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government, 30 September 2008, p. xvi.

11 Roger Beale, *One Biosecurity: A Working Partnership*. The Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government, 30 September 2008, p. 4.

which shifted focus from quarantine measures with a 'border preoccupation' to a broader concept of biosecurity encompassing full pre-border and post-border measures, with an emphasis on managed risk.¹²

2.15 The 2008 Beale review concluded that a zero risk biosecurity regime was not desirable or possible. It noted in this regard that:

Australia cannot afford to search every passenger or every container of cargo arriving in the country, nor can it prevent the arrival of disease or vectors on air currents. Consequently, it is inevitable that there will be pest and disease incursions. A strong coordinated post-border capability minimises the chances of those pests and disease becoming established.¹³

2.16 In December 2008, in response to the Beale review, the Australian Government agreed in principle to the recommendations outlined in the report and moved to a risk-based approach to biosecurity, supported by intelligence.¹⁴ In 2012, DAWR noted that, as part of its reform program, it was moving to a risk-based approach for biosecurity supported by 'intelligence, analysis, risk profiling, operational changes and feedback capabilities'.¹⁵

2.17 The risk-based approach was reaffirmed in the Biosecurity Act which provides 'flexible and responsive powers that allow biosecurity officials to best target risk based on the circumstances of each case'.¹⁶ In his second reading speech on the bill, the Minister for Agriculture and Water Resources, the Hon Barnaby Joyce MP acknowledged that the development of a risk-based biosecurity system helped DAWR to 'more effectively manage biosecurity risks associated with ever-increasing volumes of trade and passengers moving across our border'.¹⁷

2.18 DAWR also highlighted the benefits of the approach:

Risk-based operations will reduce the administrative burden on compliant clients, enabling faster clearance at the border through better targeting and focus on higher risk commodities and stakeholder behaviours. It will also

12 Roger Beale, *One Biosecurity: A Working Partnership*. The Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government, 30 September 2008, p. ix.

13 Roger Beale, *One Biosecurity: A Working Partnership*. The Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government, 30 September 2008, p. 207.

14 Department of Agriculture and Water Resources, *Submission 9*, p. 15.

15 Department of Agriculture, Fisheries and Forestry, *Reform of Australia's biosecurity system*. An update since the publication of *One Biosecurity: a working partnership*, March 2012, p. 7.

16 Explanatory Memorandum, Biosecurity Bill 2014, p. 9.

17 The Hon Barnaby Joyce MP, Minister for Agriculture and Water Resources, Second Reading Speech, *House of Representatives Hansard*, 27 November 2014, p. 13426, http://parlinfo.aph.gov.au/parlInfo/genpdf/chamber/hansardr/07c1718f-8e51-4958-9cc9-f8492bfb5c93/0019/hansard_frag.pdf;fileType=application%2Fpdf (accessed 30 May 2017).

reduce delays for industry and cut the costs for clients who actively and conscientiously take account of biosecurity risks.¹⁸

2.19 In its submission to the inquiry, DAWR reaffirmed that, as zero risk is not achievable, biosecurity threats are effectively managed using a risk-based approach.¹⁹

Intergovernmental Agreement on Biosecurity

2.20 Under the Biosecurity Act, the Australian Government, through DAWR, 'manages biosecurity risks and emergencies and gives effect to Australia's international rights and obligations, including the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement)'.²⁰

2.21 DAWR is the 'custodian' of federal biosecurity services. Its mission is to 'sustain the way of life and prosperity of all Australians and help people and goods move in and out of Australia while managing the risks to the environment and animal, plant and human health'.²¹

2.22 While DAWR's role in relation to biosecurity is set out in the Biosecurity Act, responsibility for Australia's biosecurity is shared between the Commonwealth, state and territory governments. To coordinate national action on biosecurity issues, an Intergovernmental Agreement on Biosecurity (IGAB) came into effect in January 2012. It serves as an agreement between the Commonwealth and all state and territory governments, with the exception of Tasmania:

The IGAB aims to strengthen the working partnership between governments and to improve the national biosecurity system and minimise the impact of pests and disease on Australia's economy, environment and the community.²²

2.23 A National Biosecurity Committee (NBC) was formally established under the IGAB to provide advice to the Agriculture Senior Officials Committee and Agriculture Ministers' Forum on national biosecurity, while also providing advice on progress in implementing the IGAB.

Responding to an outbreak of pests or disease in Australia

2.24 In 2015, the NBC formed a National Biosecurity Emergency Preparedness Expert Group to enhance Australia's biosecurity emergency preparedness, response

18 Department of Agriculture, Fisheries and Forestry, *Reform of Australia's biosecurity system: An update since the publication of One Biosecurity: A Working Partnership*, March 2012, p. 8.

19 Department of Agriculture and Water Resources, *Submission 9*, p. 3.

20 Department of Agriculture and Water Resources, *Submission 9*, p. 14.

21 Department of Agriculture and Water Resources, *Reform of Australia's biosecurity system – An update since the publication of One Biosecurity: A working partnership*, March 2012, <http://www.agriculture.gov.au/biosecurity/australia/biosecurity-reform/reform-biosecurity-system> (accessed 29 May 2017).

22 Department of Agriculture and Water Resources, *Intergovernmental Agreement on Biosecurity*, <http://www.agriculture.gov.au/biosecurity/partnerships/nbc/intergovernmental-agreement-on-biosecurity> (accessed 29 May 2017).

and initial recovery arrangements. This expert group administers the Biosecurity Incident Management System (BIMS) which provides guidance on how to manage and respond to a biosecurity incident. The BIMS contributes to achieving a priority reform area of IGAB Schedule 7, namely to:

Maintain clearly defined and consistent emergency response arrangements that are recognised and practiced by all jurisdictions across each level of government.²³

2.25 In Australia, each state and territory has operational responsibility for the surveillance, monitoring, control and eradication of aquatic animal diseases within its borders, whether the diseases are endemic or exotic. Each state and territory also administers its own emergency disease control legislation.²⁴ While there are a number of plans, groups and processes that can be utilised to respond to an outbreak, the BIMS is intended to complement these established arrangements by providing a nationally agreed system which can be applied in response to an outbreak:

The Biosecurity Incident Management System is a uniform approach for managing the response to biosecurity incidents and can be applied to all biosecurity sectors. It is based on established incident management systems, which are widely recognised and used throughout Australia.²⁵

2.26 In terms of the preferred approach to diseases that affect aquatic animals, an Australian Aquatic Veterinary Emergency Plan (AQUAVETPLAN) serves as a set of technical response manuals focused on aquatic animal disease incursions. The first AQUAVETPLAN disease strategy for WSD was published in June 2005 with the current version (2.0) dated September 2013.

AQUAVETPLAN white spot disease strategy

2.27 The AQUAVETPLAN strategy for WSD sets out the disease control principles for use in an aquatic veterinary emergency incident caused by the suspicion or confirmation of WSD in Australia.²⁶ The basic principles for disease eradication and control responses are contained in other manuals within the AQUAVETPLAN

23 Biosecurity Emergency Preparedness Working Group, Biosecurity Emergency Management (V1.0), *Biosecurity Incident Management System*, 2012, p. 7, <http://www.agriculture.gov.au/SiteCollectionDocuments/animal-plant/pihc/bepwg/biosecurity-emergency-management-biosecurity-incident-management-system.pdf> (accessed 30 May 2017).

24 Department of Agriculture Fisheries and Forestry, *Australian Aquatic Animal Diseases Veterinary Emergency Plan – AQUAVETPLAN 2001, Management Manual*, 2001, p. 13. <http://www.agriculture.gov.au/SiteCollectionDocuments/animal-plant/aquatic/aquavetplan/control.pdf> (accessed 6 June 2017).

25 Biosecurity Emergency Preparedness Working Group, Biosecurity Emergency Management (V1.0), *Biosecurity Incident Management System*, 2012, p. 7.

26 Department of Agriculture, *Australian Aquatic Veterinary Emergency Plan. Disease Strategy. White spot disease*, Version 2, 2013, p. 4, <http://www.agriculture.gov.au/SiteCollectionDocuments/animal-plant/aquatic/aquavetplan/white-spot.pdf> (accessed 29 May 2017).

including the Enterprise Manual which provides state and territory legislation relating to disease control and eradication.

2.28 The white spot disease strategy identifies three preferred response options and sets out strategies to appropriately control and eradicate WSD. The most appropriate strategy must be chosen after epidemiological investigations have been conducted, while the decision must be based on scientific effectiveness and financial feasibility.²⁷

2.29 The three broad control options for WSD identified by the strategy are:

- *Eradication*—eradication of WSSV from Australia (highest level control measure and may be the most cost-effective in the long term).
- *Containment, control and zoning*—containment of WSSV to areas in which infection has become endemic, and prevention of further spread and protection of uninfected areas.
- *Control and mitigation of disease*—implementation of management practices that decrease the incidence and severity of clinical disease outbreaks (lowest level control measure and likely to be the least costly).²⁸

2.30 Each of the response options may involve the use of a combination of strategies such as quarantine and movement controls on crustaceans within declared areas to prevent infection spreading.²⁹

2.31 In terms of roles and responsibilities, the AQUAVETPLAN Control Centres Management Manual sets out the notification arrangements, order of procedures, management structures and roles of personnel following suspicion of the presence of WSD in Australia.

2.32 In the first instance, the Director of Fisheries and/or the Chief Veterinary Officer (CVO) in the state or territory in which the outbreak occurs is responsible to develop an Emergency Animal Disease response plan (EAD response plan). In turn, the EAD response plan is submitted to the Aquatic Consultative Committee on Emergency Animal Diseases (Aquatic CCEAD) to ensure that it is technically sound and consistent with the AQUAVETPLAN. Thereafter, the responsible Director of Fisheries and/or CVO will implement the disease control measures as agreed in the EAD response plan and in accordance with relevant legislation.³⁰

27 Department of Agriculture, *Australian Aquatic Veterinary Emergency Plan. Disease Strategy. White spot disease*, Version 2, 2013, p. 46.

28 Department of Agriculture, *Australian Aquatic Veterinary Emergency Plan. Disease Strategy. White spot disease*, Version 2, 2013, p. 29.

29 Department of Agriculture, *Australian Aquatic Veterinary Emergency Plan. Disease Strategy. White spot disease*, Version 2, 2013, p. 46.

30 Department of Agriculture, *Australian Aquatic Veterinary Emergency Plan. Disease Strategy. White spot disease*, Version 2, 2013, p. 47.

Managing the WSD outbreak

Role the Commonwealth Government

2.33 In terms of the Commonwealth, DAWR is responsible to provide technical support to Biosecurity Queensland through the Aquatic CCEAD:

The AqCCEAD's role during the Logan River WSSV incursion is to provide technical advice to Biosecurity Queensland on response activities and objectives, facilitate Australia's international reporting obligations and coordinate communications.³¹

2.34 In addition, DAWR has responsibility for establishing an Incident Management Team (IMT) to coordinate its own activities during the outbreak.³² An investigation into the cause of the outbreak commenced on 13 December 2016 at the request of the IMT. Of the investigation, DAWR noted:

The investigation focussed on identifying the potential pathways through which the virus may have been transmitted. The investigation involved Departmental scientists who visited the affected farms with investigators. The investigation did not identify the actual pathway.³³

2.35 Additional assistance provided by DAWR has included the secondment of 13 staff to assist Biosecurity Queensland with the eradication response.³⁴

Role of the Queensland Government

2.36 As the December 2016 WSD outbreak occurred in Queensland, Biosecurity Queensland (within the Queensland Department of Agriculture and Fisheries) took the lead as the agency with primary responsibility for the containment and eradication of WSD in that state.³⁵

2.37 However, the Australian and Queensland governments have affirmed a shared commitment to support affected prawn farmers and work together to eradicate the disease. In a joint statement with the Assistant Minister for Agriculture and Water Resources, Senator the Hon Anne Ruston, the Hon Bill Byrne MP, Minister for Agriculture and Fisheries (Queensland) advised:

From day one Biosecurity Queensland has worked in close co-operation with the national committee and at every stage the response has been approved and endorsed by national experts including the Australian Chief

31 Department of Agriculture and Water Resources, *Submission 9*, p. 42. The AqCCEAD or Aquatic CCEAD is a national committee comprising state and territory directors of fisheries or CVOs together with DAWR and CSIRO representatives and industry bodies. It is chaired by the Australian Chief Veterinary Officer.

32 Department of Agriculture and Water Resources, *Interim Report into the cause of white spot syndrome virus outbreak in the Logan River area of Queensland – December 2016*, 2017, p. 8.

33 Department of Agriculture and Water Resources, *Submission 9*, p. 43.

34 Department of Agriculture and Water Resources, *Submission 9*, p. 43.

35 Mr Daryl Quinlivan, Department of Agriculture and Water Resources, *Estimates Hansard*, 28 February 2017, p. 29.

Veterinary Officer, state and territory chief veterinary officers or directors of fisheries, representatives of the Federal Department of Agriculture and Water Resources, the Fisheries Research and Development Corporation and the CSIRO Australian Animal Health Laboratory.³⁶

Costs and funding

Queensland Government funding

2.38 On Friday, 17 February 2017, the Queensland Minister for Agriculture and Fisheries, the Hon Bill Byrne MP, reaffirmed a commitment of the Queensland Government to reimburse prawn farmers for the costs incurred under the directions of Biosecurity Queensland.³⁷

2.39 As at 5 May 2017, the Queensland Government had spent more than \$11 million on the response to WSD. The Minister noted that by the end of the current financial year, the response, surveillance and sampling activities undertaken by the state government would amount to at least \$17.6 million.³⁸

2.40 The Queensland Minister also noted that a total of \$30 million in concessional loans would be available to prawn farmers to assist them to return to disease-free production as early as possible.³⁹

Federal funding

2.41 On 26 January 2017, the Minister for Agriculture and Water Resources, the Hon Barnaby Joyce MP announced up to \$1.74 million in emergency assistance to Queensland and the industry in the response to the outbreak of WSD. This funding included up to \$400,000 in direct support for Queensland prawn farmers.⁴⁰

2.42 Additional funding was announced on 1 March 2017 in the form of grants to the APFA and QSIA as follows:

36 The Hon Bill Byrne MP, Minister for Agriculture and Fisheries and Minister for Rural Economic Development (Queensland), 'Australian and Queensland governments working together to respond to white spot outbreak', *Media statement*, 17 February 2017, <http://statements.qld.gov.au/Statement/2017/2/17/australian-and-queensland-governments-working-together-to-respond-to-white-spot-outbreak> (accessed 24 May 2017).

37 The Hon Bill Byrne MP, Minister for Agriculture and Fisheries and Minister for Rural Economic Development (Queensland), 'Australian and Queensland governments working together to respond to white spot outbreak', *Media statement*, 17 February 2017.

38 The Hon Bill Byrne MP, Minister for Agriculture and Fisheries and Minister for Rural Economic Development, 'Queenslanders deserve better from Commonwealth on white spot', *Media Statement*, 5 May 2017, <http://statements.qld.gov.au/Statement/2017/5/5/queenslanders-deserve-better-from-commonwealth-on-white-spot> (accessed 31 May 2017).

39 The Hon Bill Byrne MP, Minister for Agriculture and Fisheries and Minister for Rural Economic Development, 'Queenslanders deserve better from Commonwealth on white spot', *Media statement*, 5 May 2017.

40 The Hon Barnaby Joyce MP, Deputy Prime Minister and Minister for Agriculture and Water Resources, 'Emergency assistance for prawn disease response', *Media release*, 26 January 2017.

- \$221,100 to the APFA to improve WSD management within the Australian prawn farm industry; and
- \$220,000 to the QSIA to increase the preparedness of the wild harvest seafood industry through the appointment of a Biosecurity and Industry Liaison Officer and the implementation of biosecurity programs.⁴¹

2.43 Further funding of up to \$20 million for Queensland prawn farmers affected by the outbreak was announced on 5 May 2017. Of the announcement, the Minister noted that:

This additional funding of \$20 million will be delivered directly to the prawn industry, with \$4 million to be repaid by prawn farmers through an industry levy once affected producers are back on their feet.⁴²

41 Department of Agriculture and Water Resources, *Submission 9*, p. 43.

42 The Hon Barnaby Joyce MP, Deputy Prime Minister and Minister for Agriculture and Water Resources, 'Coalition Government delivers \$20 million to assist prawn farmers', *Media release*, 5 May 2017, [http://minister.agriculture.gov.au/joyce/Pages/Media-Releases/Coalition-Government-delivers-\\$20-million-to-assist-prawn-farmers.aspx](http://minister.agriculture.gov.au/joyce/Pages/Media-Releases/Coalition-Government-delivers-$20-million-to-assist-prawn-farmers.aspx) (accessed 30 May 2017).