| Biosecurity decision-making in Western Australia: roles and responsibilities |
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| Results of stakeholder engagement |

This report was prepared by the Biosecurity Council of Western Australia. Input to the report was sought from the Biosecurity Senior Officers Group, Industry Funding Scheme committees, Forest Industries Federation of Western Australia, Pastoral Lands Board and World Wildlife Fund (WA).

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# Executive summary

The Biosecurity Council of Western Australia (the Council) was asked to provide advice on biosecurity investment decision-making. To develop this advice, the Council agreed that clearly defined roles and responsibilities of government, industry and community were a necessary first step to underpin biosecurity investment decisions. The overall purpose of the research was to develop an agreed and common understanding of the roles and responsibilities of government, industry and community in the delivery of an effective biosecurity system in Western Australia.

A two-stage stakeholder engagement process was used, with the first phase involving qualitative discussions with eleven key organisations (34 participants) across industry, government and community to elicit perceptions about biosecurity roles and responsibilities, and principles that underpin these. These data were then used to inform an online questionnaire that was completed by 290 respondents.

The process successfully engaged a range of stakeholders across industry, government and community. The process enabled a compelling picture of stakeholder perceptions of the delivery of biosecurity activity within Western Australia, and how industry, government and communities fit within this system.

Biosecurity was confirmed as an important facet of the Western Australian economy, environment and society. Of particular note was the relatively high level of importance the stakeholders placed on environmental outcomes, alongside economic outcomes. The research highlighted the need for all citizens to be engaged in biosecurity in order to maximise the effectiveness of Western Australia’s biosecurity system. Furthermore, it was acknowledged that costs should be shared, particularly with industry. In short, biosecurity as a shared responsibility was the underpinning principle that emerged from the stakeholder engagement.

Based on the data, the broad roles and responsibilities of industry, government and communities were identified as follows:

* Everyone has a responsibility to build their understanding and knowledge about biosecurity, report biosecurity issues, and undertake the necessary measures to prevent the introduction and spread of pests, weeds and diseases.
* Industry is responsible for managing their biosecurity risks, engaging with government, raising awareness of biosecurity and investing in industry-wide biosecurity activities.
* Government has a broader role as communicators, educators, facilitators, coordinators, assessors and protectors. This includes having the resources to participate in broad communication and education activities; working with industry and community on surveillance, eradication and control activities; undertaking critical risk assessments and analyses; and implementing preventative measures and emergency response activities.

Not-for-profit, research and community organisations were also seen to play an important role through funding and human resources, the delivery of biosecurity-related research and on-ground programs, fundraising, communications and awareness-raising activities.

The stakeholder engagement process identified six key areas as integral to a robust biosecurity system:

* Collaboration, cooperation and communication with key organisations or individuals with a strong stake in the issue to ensure support, understanding and ownership, increase efficiencies and build stronger relationships and networks
* Broad engagement, education and awareness-raising to develop and maintain widespread support for the state’s biosecurity
* Prioritising areas for investment using justifiable risk management and science-based processes to provide the greatest return on investment (economic, environmental and/or social), and to facilitate stakeholder acceptance of decisions
* Robust, but practical, legislation that is enforced to ensure the integrity of the system is maintained
* Adequate levels of preparedness to ensure Western Australia is always ready to tackle biosecurity threats
* Research, innovation and continuous improvement to enable a flexible biosecurity system that can adjust to changing circumstances.

In addition to the above, adequate government resourcing for biosecurity activity was identified as a top need to maintain or improve Western Australia’s biosecurity. Declining government resourcing for biosecurity has stimulated the need to target government investment toward priority areas. In turn, this has increased the focus on collaborative partnerships with industry and community in order to ensure the key components of the state’s biosecurity system are preserved.

Successful partnerships require clearly defined roles and responsibilities, and the findings presented here can provide a strong foundation for further exploration of this. Given the current environment, there is a clear need for transparent and consistent processes for determining who should invest resources where, as well as a need to clearly justify these decisions. Such decisions should be made collaboratively, and should emphasise the areas that provide the greatest return on investment.

# Introduction

## Background

The Biosecurity Council of Western Australia (the Council) was asked by the Minister for Agriculture and Food (the Minister) to provide advice on ‘effective points of obligation where private beneficiaries can contribute to biosecurity measures’. In order to develop advice that is supported by industry, government and community, the Council developed a Stakeholder Engagement Plan that identified the key stakeholders and detailed the process to be used to engage with these stakeholders. A working group was formed to coordinate the delivery of the Engagement Plan.

The overall purpose of the stakeholder engagement was to develop an agreed and common understanding of the roles and responsibilities of government, industry and community in the delivery of an effective biosecurity system in Western Australia.

The engagement focused on biosecurity activities to address a) established pests and diseases; and b) prevention/eradication of pests or diseases that are not yet established in WA but are considered endemic in other parts of the country.

There were two phases to the stakeholder engagement:

* Phase 1 – stakeholder discussions
* Phase 2 – online survey

Furthermore, a collaborative approach was taken whereby key stakeholders had opportunities to be involved in the development of the engagement process and input to the subsequent reports.

This report provides the results of the stakeholder engagement (phase one and two).

## Purpose

*Phase 1 – stakeholder discussions*

The purpose of the stakeholder discussions was to elicit perceptions about biosecurity roles and responsibilities, and principles that underpin these. More specifically, the objectives were to:

* identify the importance or value of biosecurity to the stakeholder
* identify the perceived roles and responsibilities of industry, government and community, in terms of biosecurity
* identify barriers and benefits of biosecurity to Western Australia
* build relationships with key stakeholders to enhance future opportunities.

Data collected via the stakeholder discussions were then used to inform the development of an online questionnaire (phase 2 of the stakeholder engagement).

*Phase 2 – online survey*

The purpose of the online survey was to quantify the significant themes, issues and ideas identified through phase 1. In doing so, it was anticipated that a clearer picture of biosecurity roles, responsibilities and principles would emerge, as well as the priority issues to be addressed.

# Methods

## Stakeholders

The key stakeholder organisations to be involved in the consultation were identified and mapped using a tool developed by Dr M Butcher, based on the work of P Sandman (Figure 1).

Initially, stakeholder discussions were to be undertaken with those identified at the ‘Collaborate’ and ‘Involve’ levels. However, due to time constraints, it was decided that discussions should only be undertaken with the ‘collaborate’ stakeholders. The ‘collaborate’ stakeholders were limited to, in general, the key government agencies and one key organisation for each sector.

All identified stakeholders were invited to complete the online survey. Of the 59 organisations, no contact details were available for the WA Ports Association (organisation is no longer active). Additionally, the ‘collaborate’ stakeholders identified other organisations for inclusion—Industry Pest Management Group (forestry), Pearl Producers Association and various ornamental fish bodies (Perth Cichlid Society, Koi Society of WA, Australian New Guinea Native Fish Association and Pet Shop Industry Association of WA). It was anticipated that the organisations would forward the survey details to their relevant staff, members and/or other interested parties.

## Phase 1 – stakeholder discussions

### Data collection

Stakeholders were notified of the Council’s interest in their participation in the process prior to a formal invitation being sent. Of the eleven ‘collaborate’ stakeholders invited to participate, ten agreed to take part. No response was received from the Agriculture Produce Commission.

Face-to-face semi-structured discussions were conducted with ten ‘collaborate’ stakeholders (34 participants) and one ‘involve’ stakeholder (Pastoral Lands Board – 9 participants). It was later decided that only ‘collaborate’ stakeholders would be involved in the face-to-face discussions, primarily owing to time constraints. The participants are identified in Table 1.

A discussion guide, which listed the questions to be explored during the course of each discussion, was used to ensure the same format and topics were covered with each stakeholder (Appendix 1). Pilot discussions were conducted in February 2014, and the remaining discussions took place during April – May 2014. All discussions were digitally recorded, with the exception of the discussion with the Pastoral Lands Board.

All stakeholders were sent copies of the transcripts and invited to supply comments, changes or additional information.

**Figure 1. Stakeholder mapping to identify the level of engagement**

|  |  |
| --- | --- |
| INVOLVE | COLLABORATE |
| * WALGA
* NRM Councils
* PGA
* WAFarmers
* vegetablesWA
* Environmental Protection Authority
* Nursery and Garden Industry WA
* WA Conservation Council
* Marine Parks & Reserves Authority
* Pastoral Lands Board
* RBGs
* DPC Office of Science
* Australian Petroleum Production and Exploration Association
* Aquaculture Council of WA
* WA Ports Association
 | * Department of Fisheries
* Forest Products Commission
* DAFWA
* Department Parks and Wildlife
* Department of Premier and Cabinet
* Industry Funding Scheme committees
* Agricultural Produce Commission
* Forest Industries Federation
* World Wildlife Fund (WA)
 |
| CONSULT | INFORM |
| * WA Fisheries Industry Council
* RecFishWest
* WA Horse Council
* Wines of WA
* APC Committees (avocado, banana, bee, carrot, egg, pork, potato, fruit west, strawberry, table grape, turf, vegetable)
* Australian Forest Products Association
* Sheep Industry Leadership Council
* WA Beef Council
* Western Dairy
* Western Beef
* Grains Industry Association of WA
* WA Lot Feeders Association
* Ord River Growers Association
* Carnarvon Growers Association
* WA Meat Industry Authority
* Declared species groups
* Stud Merino Breeders Association
* WA Livestock Exporters Association
* Irrigation Australia
* Chamber of Minerals and Energy WA
* Department of Health
* Centre for Phytophthora (Murdoch)
* Dieback Working Group
* Ornamental fish industry
* Australian Wildlife Conservancy
* CBH
 | * Department of Mines and Petroleum
* Australian Veterinary Association (WA)
* Invasive Species Council
* Environmental Weeds Action Network
* Plant Health Australia
* Animal Health Australia
* Department of Transport
* RSPCA
 |

Table1. Participants in stakeholder discussions

| **Date** | **Stakeholder** | **No. participants** | **Council members** |
| --- | --- | --- | --- |
| 10 February 2014 | Cattle Industry Funding Scheme Management Committee (IMC) | 6 | Michelle AllenKevin GossRebecca Heath (DAFWA)Alison Wilson (DAFWA) |
| 26 February 2014 | Pastoral Lands Board | 9 | Kevin GossAlan RobsonAlison Wilson (DAFWA) |
| 27 February 2014 | Grains, Seeds and Hay IMC | 5 | David JarvieRebecca Heath (DAFWA) |
| 7 April 2014 | Department of Premier and Cabinet | 1 | Alan Robson Rebecca Heath (DAFWA) |
| 9 April 2014 | Department of Fisheries | 2 | Tina ThorneRebecca Heath (DAFWA) |
| 15 April 2014 | Department of Agriculture and Food | 4 | David JarvieAlan RobsonAlison Wilson (DAFWA) |
| 24 April 2014 | Forestry Industry Federation of WA | 7 | Kevin GossTina ThorneRebecca Heath (DAFWA) |
| 29 April 2014 | World Wildlife Fund | 1 | Simon McKirdyAlison Wilson (DAFWA) |
| 30 April 2014 | Sheep and Goats IMC | 4 | Michelle AllenDavid JarvieRebecca Heath (DAFWA) |
| 2 May 2014 | Department of Parks and Wildlife | 2 | Kevin GossSimon McKirdyRebecca Heath (DAFWA) |
| 6 May 2014 | Forest Products Commission | 2 | Kevin GossAlison Wilson (DAFWA) |

### Analysis

The digital recordings were transcribed and independently read then re-read by the three members of the working group. The team then identified the key themes and issues, based on the original objectives, from the discussion transcripts. Transcripts were imported into N-Vivo (a qualitative analysis software program) and coded according to the key themes and issues. The data were summarised and interpreted by the team, and associations between the themes were explored.

## Phase 2 – online survey

### Data collection

A questionnaire was developed based on the information collected during phase 1 of the stakeholder consultation (Appendix 2). The survey questions were piloted with the ‘collaborate’ stakeholders, and changes made based on their feedback. There were five key sections of the questionnaire:

* Demographics – sector/industry/area of government/role within the community (as appropriate)
* Importance of biosecurity
* Biosecurity responsibilities
* Principles
* Issues/barriers.

Stakeholders identified at the ‘Involve’ level were sent a formal letter inviting their participation in the survey. Stakeholders identified at the ‘Consult’ and ‘Inform’ levels were sent an email invitation. The ‘collaborate’ stakeholders were also invited to complete the amended version of the questionnaire.

The questionnaire was available online via Survey Monkey, and open for 20 days from 6 June 2014 until 26 June.

A total of 290 valid responses were received. Of these, 41% were from industry, 30% from government, 21% from community, 4% from research or educational institutions, and 4% were ‘other’. Figure 2 identifies the composition of industry, government and community respondents. ‘Agriculture’ dominated the responses, with approximately 50% of the total responses from the agricultural sector (industry and government).

### Analysis

Responses were screened to remove ineligible responses—that is, those that did not provide responses to the questions, other than demographic information. Data were analysed using simple frequencies, cross-tabulations, descriptives and analysis of variances (ANOVA) using SPSS software. Qualitative responses were imported into N-Vivo (a qualitative analysis software program), coded according to key themes and then summarised.

**Figure 2. Sectors associated with survey respondents.***Note that*

* *‘Other’ industry includes apiculture, multiple industries, poultry, industry association*
* *‘Other’ government includes Department of Lands, Department of Water*
* *‘Other’ community includes conservation groups, hobbyist*

# Findings

## Importance of biosecurity

The stakeholder discussions elicited the following reasons as to why biosecurity is important:

* To support the continuing viability of industries
* To aid the preservation of our biodiversity
* To ensure the safety of our food products
* To sustain access to markets
* To help improve and maintain healthy ecosystems
* To preserve our ‘clean and green’ image.

The relative importance of these was quantified via the online survey, whereby respondents were asked to indicate the two most important reasons for effective biosecurity. Two other areas—public health and social amenity—were included in the questionnaire as these are often identified as important outcomes of biosecurity. The survey responses are shown in Figure 3.

**Figure 3. Survey responses – reasons for effective biosecurity**

The environment featured as an important reason for biosecurity across all sectors (Fig. 3 and Table 2).

**Table 2 Survey responses – top two reasons for effective biosecurity.**

| **Sector** | **Reason** | **No. responses** | **% of sector** |
| --- | --- | --- | --- |
| **Industry** | Continued industry viability | 79 | 34 |
|  | Preservation of our biodiversity | 40 | 17 |
| **Government** | Continued industry viability | 49 | 28 |
|  | Preservation of our biodiversity | 36 | 21 |
| **Community** | Healthy ecosystems | 48 | 39 |
|  | Preservation of our biodiversity | 41 | 33 |

All stakeholders that participated in the survey and discussions viewed biosecurity as important to their areas of interest. A strong level of agreement was evident by the online survey respondents to the statement ‘A well-managed biosecurity system is important for my sector/area of interest’, with a mean response of 6.5 (where 1 = strongly disagree; and 7 = strongly agree).

## Biosecurity – a shared responsibility

All stakeholder discussions identified biosecurity as the responsibility of everyone – industry, government and community. In particular, it was a common belief that it was the responsibility of all citizens to:

* report biosecurity issues
* undertake the necessary measures to prevent the introduction and spread of pests, weeds and diseases.

The view of biosecurity as a shared responsibility was corroborated by the online survey results (Figure 4).

**Figure 4. Survey responses to the statement ‘Everyone in the state has a responsibility for biosecurity’.**

The idea of biosecurity as a shared responsibility has underpinned the delivery of biosecurity for many years; however, the stakeholder discussions highlighted the need to improve awareness levels, and ensure that processes and systems are in place to facilitate greater citizen participation in biosecurity-related activities.

The roles and responsibilities of industry, government and community, as perceived by the stakeholders through the discussions and online survey, are presented in Table 3. From this, there appeared to be general agreement that:

* industry is responsible for managing their biosecurity risks, and should proactively engage with government on biosecurity issues. Industry also has a role in funding industry-wide biosecurity activities and raising awareness of biosecurity
* government has a broader role as communicators, educators, facilitators/coordinators, assessors and protectors. This includes having the resources to participate in broad communication and education activities; work with industry and community on surveillance, eradication and control activities; undertake critical risk assessments and analyses; and implement preventative measures and emergency response activities
* community is an important resource for surveillance and reporting, and can actively contribute to the state’s biosecurity.

In the case of resourcing, differing views emerged. Both industry and community stakeholders saw government’s top responsibility as having the necessary resources for biosecurity-related activities; whilst government stakeholders saw industry as an important avenue for funding biosecurity programs (Table 3).

In addition, the online survey highlighted the following:

* It is important for everyone to minimise the spread of pests, weeds and diseases (6.5)
* Reporting of suspicious pests, weeds and diseases is everyone’s responsibility (6.5)
* The main focus of the state government, in terms of biosecurity, should be prevention, early detection and early eradication (6.3)
* Government agencies should encourage biosecurity (6.6)
* Government agencies should keep industries and the general public informed about pests, weeds and diseases (6.6)
* Industry groups/organisations should encourage biosecurity practices to their members (6.6) and keep their members informed about pests, weeds and diseases (6.5)
* Industry groups/organisations should undertake activities to raise awareness within the general community of biosecurity issues (6.0)
* Community groups/organisations should encourage biosecurity practices among their members (6.3) and keep their members informed about pests, weeds and diseases (6.3).
* Note: numbers represent the average response, where 1 = strongly disagree; 7 = strongly agree

The role of not-for-profit and community organisations was also highlighted through the stakeholder engagement. The biosecurity agendas of these organisations are largely based on community or environmental concerns, with activities such as awareness-raising, education, fundraising and on-ground biosecurity-related programs contributing to the state’s biosecurity system. Furthermore, these organisations provide an important avenue for community engagement in biosecurity, and active citizen participation, including community volunteers.

Although there appeared to be general agreement on the broad roles/responsibilities across industry, government and community, there were uncertainties and inconsistencies at a more detailed level. For example, the specific roles and responsibilities of the different government agencies were identified as an issue by government and industry stakeholders. This was supported by the responses to the online survey, with clarity of the biosecurity role of government agencies; industry and community identified as important issues (Table 4).

**Table 4. Survey responses to ‘clarity of roles’ as an issue affecting the delivery of biosecurity in WA.**

| **Issue** | **Mean response** |
| --- | --- |
| Clarity of the role of government agencies, with regard to biosecurity | 5.2 |
| Clarity of the role of industry, with regard to biosecurity | 5.1 |
| Clarity of the role of community, with regard to biosecurity | 5.0 |

*1 = not at all an issue; 6 = extremely important issue*

Table 3. Biosecurity roles and responsibilities identified by stakeholders

| **Stakeholder group** | **Role / responsibility of****Industry** | **Role / responsibility of****Government** | **Role / responsibility of****Community** |
| --- | --- | --- | --- |
| Industry | * Participation / active engagement in control/ management (27%)
* Surveillance / reporting (17%)
* Engage with industry – raise awareness (14%)
* To be aware / have an understanding (10%)
* Engage with government (10%)
* Provide funds for industry-wide biosecurity activity (8%)
 | * Have the resources (16%)
* Coordinate /provide leadership (15%)
* Develop the protocols/policies (12%)
* Communication and extension (12%)
* Provide support / guidance (technical expertise) (12%)
* Collaborate (10%)
* Enforce legislation (8%)
* Prevent and respond (7%)
 | * To be aware / have an understanding (37%)
* Participation / active engagement in control/ management (30%)
* Surveillance / reporting (21%)
* Influence government (4%)
* Minimise the risk (4%)
 |
| Government | * Participation / active engagement in control/ management (21%)
* Fund biosecurity (18%)
* Raise awareness within the industry (17%)
* Work with government (12%)
* Surveillance / reporting (11%)
* Comply with legislation (8%)
* Be aware / have an understanding (7%)
 | * Raise awareness / training / extension (13%)
* Facilitate prevention / early detection / early eradication (13%)
* Provide legislation / policies / processes (11%)
* Supporting industry / providing tools and advice (technical expertise) (11%)
* Monitor compliance with legislation (11%)
* Monitoring and surveillance (9%)
* Coordination and leadership (9%)
* Ensuring the public good is protected, including (broad) industry (5%)
 | * To be aware / have an understanding (31%)
* Surveillance / reporting (29%)
* Participation / active engagement in control/ management (18%)
* Compliance with legislation (8%)
* Minimise the risk (8%)
 |
| Community | * Participation / active engagement in control/ management (33%)
* Fund biosecurity (17%)
* Raise awareness of biosecurity (17%)
* Work with government (12%)
 | * Have the necessary resources (20%)
* Enforce the legislation (16%)
* Raise awareness (11%)
* Develop regulations, policies, procedures (11%)
* Prevent and respond (9%)
* Provide support / guidance (technical expertise) (9%)
* Undertake research (8%)
 | * Participation (28%)
* To be aware / have an understanding (17%)
* Education and awareness-raising (17%)
* Surveillance / reporting (12%)
* Minimising their biosecurity risks (10%)
* Influence government (8%)
 |

## Investment in biosecurity

Traditionally, industry investment in government-coordinated biosecurity activities centred on formalised agreements to support government emergency response to pest and disease incursions impacting on industry. In Western Australia over recent years, other mechanisms for industry and community investment in programs that address their biosecurity priorities have been implemented, which includes funding to control established pests and diseases (Industry Funding Schemes and Recognised Biosecurity Groups).

In addition to the above, the stakeholder discussions uncovered several other facets of biosecurity investment:

The sharing of biosecurity costs across government agencies

The financial costs (including consequential/direct losses) accepted by industry to abide by government legislation and protocols

Community fundraising activities to provide funds for biosecurity-related activities

Industry-driven biosecurity services (such as industry funding of specialised personnel such as entomologists)

Financial (and other) costs of voluntarily undertaking biosecurity activities.

Government, industry and community investment in biosecurity is underpinned by the broad principle of biosecurity as a shared responsibility. However, who should invest in what can be a contentious issue. The stakeholder discussions identified the following:

* If biosecurity activity provides a financial benefit to an industry, then the industry should contribute to the costs of the biosecurity activity
* If the activities of an industry result in increased biosecurity risk, then the industry should contribute to the costs of minimising the risk.

*Note: ‘industry’ refers to any commercial venture.*

The above points were supported by the responses from the online survey (Table 5).

**Table 5. Survey responses to biosecurity investment statements**

| **Statement** | **Mean response** |
| --- | --- |
| Those whose activities are a risk to Western Australia’s biosecurity should contribute to the costs of minimising the risk | 5.7 |
| Those who benefit from biosecurity programs should contribute to the costs | 5.2 |

*1 = strongly disagree; 7 = strongly agree*

The value of biosecurity in providing environmental benefits was highlighted by respondents across all sectors as an important factor (see section 3.1). There was discussion about the potential for a formalised ‘environmental levy’ that collects funds from the community for biosecurity activities. This suggestion taps into the increasing awareness and engagement of the community in environmental biosecurity.

The stakeholder discussions indicated a perception amongst some of the government stakeholders of industry reluctance, if not an outright objection, to industry-based funding for biosecurity. However, this was not mirrored in the discussions with industry. In general, the industry stakeholders recognised their role in the system and were willing to contribute, as they understood and acknowledged the clear benefits of biosecurity to their industry.

The capacity of industry/community groups to manage large amounts of funding for biosecurity programs was identified as an issue through the stakeholder discussions. Given the potential for increased uptake of industry- and/or community-funded biosecurity initiatives through mechanisms such as Industry Funding Schemes and Recognised Biosecurity Groups, this is an important issue requiring attention.

Government investment in biosecurity is generally guided by private versus public outcomes or benefits. In the past, determining public and private benefits of biosecurity activity was hotly debated and often viewed by industry as ‘cost-shifting’ by government—it was, arguably, one of the most important issues associated with the delivery of biosecurity. However, the issue did not feature as a key point through the stakeholder engagement. It was briefly raised by one discussion group, and the online survey respondents identified the importance of the issue as the second lowest (mean response from industry of 4.0, where 1 = not at all an issue; and 6 = extremely important issue).

## Collaboration, cooperation and communication

Collaboration, cooperation and communication was a consistent theme throughout the stakeholder discussions. The key message was about working together and keeping stakeholders informed, and this was seen as critical to a successful biosecurity system.

This theme relates to collaboration, cooperation and communication with identified groups, organisations or individuals with a strong stake in the outcome, rather than ‘general’ communication. Important components of this theme were:

* Sharing of resources
* Stakeholder involvement at all levels – from planning though to implementation
* Cross-agency interactions
* Strong, timely communication to keep stakeholders informed
* Government support to help industry undertake its obligations.

*“We can’t expect to just tell them what they’re due to pay; they’ve got to be involved with the process” – Government stakeholder.*

There were many benefits associated with good collaboration, cooperation and communication identified through the discussions—particularly as biosecurity is a ‘cross-border’ endeavour (whether that be across agencies, industries or landscapes). The key benefits included increased efficiencies (e.g. reduced duplication, broader expertise/knowledge base etc.) and stronger relationships and networks.

**Table 6. Survey responses relating to ‘collaboration, cooperation and communication’.**

| **Statement** | **Mean response** |
| --- | --- |
| Working together on biosecurity results in improved outcomes for my sector | 6.4 |
| Those impacted by pests, weeds and diseases should have the opportunity to be involved in decisions about the biosecurity issues affecting them | 5.2 |
| Industry and community stakeholders should have input to biosecurity emergency responses | 6.0 |

*1 = strongly disagree; 7 = strongly agree*

The stakeholder discussions gave examples of successful collaboration and cooperative approaches; however, in general, it was believed that improvements could be made. This was further supported by the online survey where ‘collaboration between government and industry’ was identified as an important issue (mean response = 5.3, where 1 = not at all an issue; and 6 = extremely important issue).

## Engagement, education and awareness

Engagement, education and awareness at both a general level (e.g. biosecurity in the broad sense) and more specifically (e.g. particular biosecurity issues) emerged as a key theme during the stakeholder discussions, and was identified as a top need by government, industry and community stakeholder via the online questionnaire (see section 3.10). Similar to ‘collaboration, cooperation and communication’ above, this theme was identified as a critical component of a successful biosecurity system.

This theme relates to the broader engagement, education and awareness of citizens, rather than the targeted stakeholders addressed in 3.4 above. Nevertheless, it was acknowledged in the discussions that a level of engagement, education and awareness is also necessary for the biosecurity stakeholders targeted in 3.4.

The online survey respondents had expectations of the general community being aware of biosecurity issues (‘I expect the general community to have an awareness of biosecurity threats’—mean response 5.8, where 1=strongly disagree; and 7=strongly agree). Furthermore, survey respondents felt it was very important that industries and communities were aware of biosecurity issues (mean responses 6.6 and 6.5, respectively). However, the online survey also identified industry and community’s level of knowledge about biosecurity as important issues (mean response=5.1 for both industry and community, where 1= not at all an issue; and 6=extremely important issue).

The stakeholder discussions identified a general understanding and awareness of biosecurity as the necessary grounding for increased citizen engagement with biosecurity. With increased engagement, it was believed there would be more opportunities to increase citizen knowledge, understanding and awareness of more specific biosecurity-related issues such as species identification, surveillance, reporting, control options, legal responsibilities and so on. It was thought that this would culminate in a more effective biosecurity system for Western Australia by delivering, for example, industry and community expertise to undertake relevant biosecurity activities (‘I expect industry to have the expertise to undertake relevant biosecurity activities’—mean response 5.7, where 1=strongly disagree; and 7=strongly agree).

Citizen engagement in biosecurity was highlighted as an area for improvement, particularly as citizens were seen as an underutilised, but often willing, resource. However, it was acknowledged that increased citizen participation would require adequate processes, systems and structures to be in place (for example, to enable simple reporting of potential biosecurity threats), and may result increased workloads to respond to increased numbers of enquiries (for example).

Several areas were identified as important issues requiring attention:

* Government communication about biosecurity (5.3)
* Knowing who to contact to report biosecurity-related issues (5.2)
* Access to biosecurity information (5.1)
* Industry communication about biosecurity (5.0)
* People not reporting suspicious pests, weeds and diseases for fear of potential repercussions (4.9).
* Note: numbers represent the average response, where 1 = not at all an issue; and 6 = very important issue

Engagement, education and awareness-raising was identified as a role of all—not just government agencies (see Table 2).

## Prioritising and justifying

Most of the stakeholder discussions identified prioritisation and justification of investment in biosecurity as essential, owing to diminishing resources to address what appeared to be increasing biosecurity demands. In general, the stakeholders believed the focus of investment should be at prevention and eradication, and the *‘areas of the greatest risk’*. This was confirmed by the online survey, with a mean response of 5.9 to the statement ‘Biosecurity activities must be targeted to areas of greatest risk’ (1=strongly disagree; 7=strongly agree).

Cost-benefit analyses were mentioned during the stakeholder discussions as the means to prioritise and justify the level of investment in biosecurity. Discussions with stakeholders within agricultural industries provided conflicting views on this—on the one hand, some believed cost-benefit analyses to be a key tool to determine the value of continued investment in a biosecurity program. On the other hand, some believed it was necessary to eradicate the pest, weed or disease *‘whatever the cost’* in order to bring it back to a surveillance program rather than ongoing control. The statement within the online survey of ‘The benefits of biosecurity activities should outweigh the costs’ provided a mean response of 4.8 (Figure 5).

A few stakeholder discussions highlighted an historical aspect to investment in certain biosecurity activities, rather than any rigorous prioritisation process. Furthermore, prioritisation was based upon differing criteria that were dependent on the sector—for example, the level of impact on agriculture was key to agriculture-related groups; whereas, environmental impacts were key for environmental organisations. Interestingly, government stakeholders recognised the need for state-level biosecurity priorities to be identified (as opposed to agency priorities) to support collaborative cross-government action. In this model, a state priority would be a priority of all biosecurity agencies.

**Figure 5. Survey responses to the statement ‘The benefits of biosecurity activities should outweigh the costs’.**

In general, stakeholders believed the benefits of biosecurity activity should outweigh the costs. It was believed that a transparent, consistent, science-based approach should be used to determine where to invest in biosecurity - and that this assessment should value environmental and social benefits, not just economic aspects. The online survey supported this, with a mean response of 5.9 for the statement ‘Decisions relating to biosecurity should consider environmental, social and economic factors’. Furthermore, determining how public money should be spent on biosecurity was seen as an important issue (mean response 5.2, where 6 = extremely important issue).

Good communications to explain *‘why we’re doing what we’re doing’* were also highlighted as an important aspect. As such, prioritising and justifying investment into biosecurity is one area that should be tackled in a collaborative, cooperative and communicative manner, as described in section 3.4.

## Rules and regulations

Rules and regulations were raised by all stakeholders during the discussions, and were seen as an integral part of the state’s biosecurity system by all. Several thought that the legislation was not strong enough; others felt it was not clear. Nevertheless, all stakeholders saw value in having biosecurity underpinned by legislation.

Government legislation/regulations were seen by the survey respondents as a relatively important issue (mean response = 5.0). Interestingly, community respondents were more likely to see this as an issue, with 67% of community respondents rating this as an extremely important issue (Figure 6). This may correspond with the increasing understanding of the ability of biosecurity legislation to address environmental pests such as feral cats - which featured heavily in discussions with community-based organisations and qualitative responses in the online survey by community-based respondents.

**Figure 6. Survey responses to government legislation/regulations as an issue or barrier to achieving effective biosecurity for WA.**

Furthermore, an important issue raised in several stakeholder discussions was the ability of the government to properly enforce its legislation to ensure people were *‘doing the right thing’*. It was acknowledged that the rules were there to facilitate the state’s biosecurity; however, this would not be achieved if the legislation was not enforced. It was interesting to note that the industry and community stakeholders saw biosecurity legislation and its enforcement as important, rather than as a hindrance to their industry or lifestyle. On the other hand, several stakeholders noted that ‘red tape’ can impact on the effectiveness of the state’s biosecurity. In all these instances, the stakeholders groups were referring to the Australian Pesticides and Veterinarian Medicines Authority constraining the use of certain vaccines, baits and other chemicals believed necessary for the effective control of biosecurity pests, weeds or diseases. The impact on businesses/industry of complying with biosecurity regulations was seen as the least important issue by the online survey respondents.

In general, industry and community stakeholders involved in the discussions accepted the regulations and adhered to the requirements. The more mature industries noted that the compliance obligations were just a part of their routine business.

## Preparedness

A smaller theme to emerge from the stakeholder discussions was the area of ‘preparedness’. Several stakeholders identified aspects of looking forward – *‘scanning the horizon’* – to identify the potential risks to the state or industry, and therefore help ensure we are ready to respond, and to generally keep abreast of the issues at both national and international levels.

The other aspect of ‘preparedness’ that was raised by stakeholders, particularly government, was the need to ensure the state has the ongoing capacity and resources to respond to large- and small-scale biosecurity incursions. This included adequately trained staff, diagnostic capability, financial resources, systems and processes. There was a very strong expectation amongst the stakeholders that the government would have the necessary expertise and resources to support an effective biosecurity system, including emergency response (mean response = 6.6, where 7 = strongly agree).

## Research, innovation and continuous improvement

Keeping abreast of the latest scientific/technological advances was an important aspect of the state’s biosecurity system for many industry and government stakeholders, and for some research-type community organisations. There was a strong continuous improvement ethic amongst the stakeholders *‘to make sure we are doing the best we can’*, with research, development and innovation seen as an important aspect of this. This was corroborated by the survey respondents, with a mean response of 6.5 to the statement ‘We need to keep looking for new ways to address pests, weeds and diseases’ (where 1 = strongly disagree; and 7 = strongly agree).

State-based research and development was also seen to be of particular importance for two key reasons - to contribute to the advancement of the biosecurity knowledge, and to develop processes, systems and technologies that have direct application within the Western Australian context.

## Industry, government and community needs

The online questionnaire provided a snapshot of the top needs of industry, government and community, with regard to biosecurity (Table 7). Respondents were asked to state their top three needs with regard to maintaining or improving biosecurity for Western Australia. ‘Improved industry and community awareness / understanding about biosecurity’ and ‘government resources’ were identified by all stakeholder groups as important needs. In this context, biosecurity awareness/understanding is synonymous with ‘engagement, education and awareness’ discussed in section 3.5, and the need was consistent across the three sectors.

‘Government resources’, as a need, had subtle nuances across the sectors. In terms of industry, this encompassed financial resources as well as ‘support’, which may be non-monetary. In terms of financial resources, three key needs were identified:

* A need for adequate funding to be available for Government to undertake its biosecurity responsibilities
* A need for Government to commit resources to specific areas, such as border biosecurity activities
* A need for government funding to support industry in their biosecurity activities.

The meaning of ‘Government support’ was less specific, but was taken to include non-financial support such as expertise and advice.

For Government, ‘government resources’ related specifically to the need for adequate funding and staff to allow Government’s biosecurity responsibilities to be undertaken. This was similar to the community’s needs; however, what constitutes ‘government responsibilities’ may differ between government, industry and community.

**Table 7. The top biosecurity needs of industry, government and community.**

| **Sector** | **Need** | **Responses** |
| --- | --- | --- |
| Industry(n=253) | Improved industry and community awareness / understanding about biosecurity | 17% |
|  | Increased government investment in biosecurity | 12% |
|  | Maintained / improved border biosecurity | 8% |
|  | Government support to industry for biosecurity | 7% |
| Government(n=218) | Adequate funding to undertake biosecurity activities | 21% |
|  | Staff with biosecurity expertise and capacity | 14% |
|  | Improved industry and community awareness / understanding about biosecurity | 12% |
|  | Industry and community commitment to biosecurity | 9% |
| Community(n=121) | Adequate government resources (staff and money) to undertake biosecurity activities | 19% |
|  | Improved industry and community awareness / understanding about biosecurity | 14% |
|  | Targeting of resources to priority areas / identifying priorities | 12% |
|  | A collaborative approach between government, industry and community | 10% |

# Conclusions

The engagement process successfully engaged with a wide range of stakeholders across industry, government and community. The strength of the process enabled a compelling picture of stakeholder perceptions of the delivery of biosecurity activity within Western Australia, and how industry, government and communities fit within this system.

Through the stakeholder engagement, biosecurity was confirmed as an important facet of the Western Australian economy, environment and society. Of particular note was the relatively high level of importance the stakeholders placed on environmental outcomes, alongside the economic outcomes. Given this, a more comprehensive approach to encourage biosecurity activity amongst industry, government and community – one that highlights the environmental as well as the economic benefits – should be applied.

The widespread benefits of biosecurity validate the concept of biosecurity as a responsibility to be shared by industry, government and communities. The stakeholder engagement highlighted the need for all citizens to be engaged in biosecurity in order to maximise the effectiveness of Western Australia’s biosecurity system. Furthermore, it was acknowledged that costs should be shared, particularly with industry. In short, biosecurity as a shared responsibility was the underpinning principle that emerged from the stakeholder engagement.

The stakeholders had similar perceptions about the broad roles and responsibilities of industry, government and communities, but were somewhat uncertain about the more specific functions. The following were identified as the key roles and responsibilities.

## Industry

Good biosecurity provides financial benefits to industry, such as increased productivity and access to markets. Industry contributes to biosecurity-related activities through compulsory levies (such as those through rural R&D corporations), via subscriptions (such as through Plant Health Australia and Animal Health Australia) and voluntary contributions (such as through WA’s Industry Funding Schemes). Industry also undertakes activities to ensure compliance with legislation and protocols, and general surveillance, management and eradication activities.

As such, industry is perceived to play a strong role in safeguarding the state’s biosecurity in a number of ways:

* Being aware and understanding biosecurity (what it is, why it is important, what you can/must do)
* Reporting and managing declared pests occurring on their land
* Undertaking measures, including adherence to relevant legislation, to minimise biosecurity risks resulting from business activities

Facilitating industry-wide biosecurity activity to deliver industry benefits—including surveillance, eradication, control and funding that is targeted toward providing the best return on investment

* Proactively engaging with government on biosecurity issues
* Raising awareness of biosecurity within the industry and community, insomuch as this will provide benefits to the industry.

## Government

It is critical for Government to ensure the effective and efficient investment of public funds. As such, Government has a broad leadership role as communicators, educators, facilitators, coordinators, assessors and protectors. To facilitate industry and community acceptance of government funding decisions, it is expected that valid methods will be used transparently. While industry accepts and supports government’s regulatory role, it expects regulatory requirements to recognise and align with industry operations to minimise ‘red tape’ and ensure practical application. Government roles and responsibilities were identified to include:

Targeting effort toward prevention and early eradication, as this provides the best return on investment of public funds

Supporting industry / community in eradication and control efforts (e.g. technical expertise, coordination of responses to new biosecurity incursions)

Developing and delivering robust legislation, policies, systems and processes to support the state’s biosecurity system

Building and maintaining widespread support for and understanding of ‘biosecurity’

Targeting Government investment in biosecurity toward areas of public benefit

Managing declared pests on land that Government is responsible for

Providing coordination and leadership in undertaking biosecurity-related emergency response, including the rapid mobilisation of resources

Ensuring engagement and partnerships with industry and community, and clear, transparent process—including for all of the above.

## Community (all citizens)

Biosecurity is an important part of the Western Australian economy, environment and society requiring participation from all citizens, including the management of pests and diseases by all landholders. From the data, community’s roles are believed to include:

* Reporting biosecurity issues
* Undertaking measures, including adherence to relevant legislation, to prevent the introduction and spread of pests, weeds and diseases
* Being aware and understanding biosecurity (what it is, why it is important, what you can/must do).

Not-for-profit, research and community organisations also play an important role through funding (such as via Recognised Biosecurity Groups), voluntary donations of time, money and expertise, the delivery of biosecurity-related research and on-ground programs, as well as fundraising, communications and awareness-raising activities.

The key issues that emerged from the stakeholder engagement highlight the areas that can be strengthened to improve Western Australia’s biosecurity system:

* Improved collaboration, cooperation and communication with key organisations or individuals with a strong stake in the issue to ensure support, understanding and ownership. This will also deliver increased efficiencies (e.g. reduced duplication, a broader expertise/knowledge base etc.) and build stronger relationships and networks
* Broad engagement, education and awareness-raising to develop and maintain widespread support for the state’s biosecurity. This was identified as a top need by government, industry and community, and relates to ‘citizens’ in general, rather than targeted stakeholders. To increase citizen participation in biosecurity activities requires processes and systems to facilitate citizen engagement and cope with increased expectations
* Prioritise areas for investment using justifiable risk management and science-based processes to provide the greatest return on investment. This ‘greatest return on investment’ does not apply only to economic returns, but also environmental and social outcomes. Prioritisation methods should consider environmental values if decisions are to be accepted by stakeholders. With declining resources and increasing biosecurity risk, prioritising biosecurity-related investment is essential
* Provide robust legislation to support the WA biosecurity system that takes into consideration the impost on industry; and enforce the legislation to ensure the integrity of the system is maintained
* Maintain an adequate level of preparedness to ensure Western Australia is always ready to tackle biosecurity threats. There are two aspects to this—1) keeping abreast of national and international issues that may impact on WA; and 2) ensuring adequate capacity, resources and processes for response and recovery to biosecurity incursions
* Research, innovation and continuous improvement to enable a flexible biosecurity system that can adjust to changing circumstances. This includes improving the systems and processes for surveillance and reporting capabilities, increasing efficiencies and reducing duplication.

In addition to the above, adequate government resourcing for biosecurity activity was identified through the stakeholder engagement process as a top need to maintain or improve Western Australia’s biosecurity. Declining government resourcing for biosecurity has stimulated the need to target government investment toward priority areas. In turn, this has increased the focus on collaborative partnerships with industry and community in order to ensure the key components of the state’s biosecurity system are preserved.

Successful partnerships require clearly defined roles and responsibilities, and the findings presented here can provide a strong foundation for further exploration of this. Given the current environment, there is a clear need for transparent and consistent processes for determining who should invest resources where, as well as a need to clearly justify these decisions. Such decisions should be made collaboratively, and should emphasise the areas that provide the greatest return on investment (social, economic and environmental returns).

#

# Appendices

## Appendix 1. Stakeholder discussion guide

*For use with ‘collaborate’ stakeholders and ‘inform’ stakeholders (if requested)*

Note 1: This is only a guide. The questions do not have to be asked as they are written, and other questions may be asked. However, all the areas should be covered.

Note 2: Remember to follow up with ‘why’ questions to capture an understanding of what is behind statements made by the stakeholder.

1. Introduce self / background to Biosecurity Council
	* Specialist advisory group to Minister for Agriculture and Food
	* Provides both solicited and unsolicited advice on strategic state issues relating to biosecurity
2. Overview of this work that the Council is undertaking
	* Minister and Director General requested advice on biosecurity roles and responsibilities
	* Comes from the background of attempts to clarify shared responsibility within biosecurity
	* Seeks to acknowledge that shared responsibility includes not ONLY costs, but all contributions from industry, government and community
	* Purpose is to develop an agreed and common understanding of the roles and responsibilities of government, industry and community in the delivery of an effective biosecurity system for Western Australia
	* Focuses on biosecurity activities to address a) established pests and diseases; and b) prevention / eradication of pests or diseases that are not yet established in WA but are considered endemic in other parts of the country. Plant and animal pests and diseases that are exotic to Australia are covered under national arrangements, and are outside the scope of this engagement
	* We are gathering information from various government agencies, as well as industry and community organisations
3. Anticipated outcomes and the ‘what’s in it for me?’
	* It is important to have input from across government, industry and community, as biosecurity is a shared responsibility
	* Opportunity for stakeholders to inform government policy
	* The Council will directly advise the Minister for Agriculture and Food, and possibly other Ministries (Fisheries, Environment and Forestry)
4. Confidentiality / agreement to record discussion
	* All discussion will be confidential – no names attached to comments (unless agreed)
	* Record discussion so we have accurately captured your views and ideas, and we may use direct quotes to highlight key points (no names attached)

Note 3: Look for opportunity for comments and discussion from stakeholder as soon as possible, to allow discussion to start. However, the following question may be used as a prompt:

**How would you describe [name of organisation/industry] involvement in biosecurity?**

1. Identify the importance / value of biosecurity to the stakeholder, and WHY it is (or isn’t) of value/importance.
	* How is biosecurity important to your industry / work / organisation?
	* What types of biosecurity activity is undertaken by your industry / work / organisation? How critical are these activities to your industry / work / organisation?
	* What benefits does your industry / work / organisation receive by undertaking biosecurity activities?
2. Identify the perceived roles of industry / government / community, and WHY they feel these groups have these roles.
	* Has your industry / work / organisation been involved in any biosecurity activity with other organisations? What happened?
		1. What worked well? What do you think was key to this success?
		2. What were the issues? How would you suggest the issues be addressed/ overcome?
	* What do you see as the role of government / industry / community in terms of maintaining WAs biosecurity on a day-to-day basis? Why?
	* What do you see as the role of government / industry / community if a biosecurity pest or disease from the eastern states was detected in WA? Why?

Note 4: ensure to get information about this stakeholders OWN roles and responsibilities. Not just feedback on the roles and responsibilities of others.

1. Identify the ‘overall’ barriers / benefits of biosecurity to WA
	* Given that biosecurity is a shared responsibility, at a State level how well do you think we are going? What are the issues? How can we improve? What is working well? What do you think is key to the successes?
	* What do you see as the potential issues on the horizon? How could these be addressed?
2. Sum up and next steps
	* Thank for their time
	* We will send a copy of the transcript for them to check
	* We will use the information collected through this and the other discussions to build an online questionnaire. The findings from both the questionnaire and these discussions will help us to draft a report
	* The draft report will be discussed at a workshop, to be held in March / April (they are invited to attend), where we will get agreement on roles and responsibilities to help ensure the delivery of an effective biosecurity system in Western Australia
	* You are welcome to contact any of the Council, if you would like to discuss this further
	* Any questions/comments?

Note 5: If you are speaking with a group ask for a nominee from the group to be the point of contact for Council to follow-up with.

## Appendix 2. Online questionnaire

The Biosecurity Council of Western Australia is investigating the delivery of biosecurity activities across the State. In particular, we are hoping for input from across government, industry and community to help develop an agreed and common understanding of roles, responsibilities and principles that underpin an effective biosecurity system for Western Australia.

The information you provide will form the basis of the Council’s advice to the State Government. We believe the information will provide a strong foundation for the development of important biosecurity-related policy. As such, we feel that it is of the utmost importance for your views to be identified, recognised and understood.

In this context, ‘biosecurity’ is the actions taken to minimise the risk of pests, weeds and diseases entering, emerging, establishing or spreading in Western Australia. The focus is on a) pests, weeds and diseases that are present in WA; and b) the prevention / eradication of pests, weeds or diseases that are not yet established in WA but are found in other parts of the country. 'Disease' refers to plant and animal diseases rather than human diseases, unless these are carried by animals.

The results of this survey will be available from the Biosecurity Council’s webpages at www.agric.wa.gov.au/bam/biosecurity-council. If you would like a copy of the results emailed to you, please enter your email address on completion of the survey.

All responses will be kept confidential.

1. In terms of your interest in biosecurity, in which sector would you class yourself

○ Industry (e.g. agriculture, mining, fishing etc.)

○ Government

○ Community

○ Research / educational institution

○ Other (please provide details)

|  |
| --- |

2. Please specify your industry

○ Agriculture

○ Horticulture

○ Fisheries / Aquaculture

○ Forestry / Plantations

○ Mining / Oil / Gas

○ Ports / Shipping

○ Other (please specify)

|  |
| --- |

3. Please specify your area in government

○ Agriculture and Food

○ Fisheries

○ Forestry

○ Health

○ Local Government

○ Parks and Wildlife

○ Premier and Cabinet

○ Other (please specify)

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4. Please specify your role within the community:

○ Individual

○ Natural Resource Management Organisation

○ Recognised Biosecurity Group

○ Declared Species Group

○ Other (please specify)

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5. The following areas have been identified as reasons as to why biosecurity is essential. From your perspective, which are the two most important reasons for effective biosecurity? (Choose two) Access to markets

□ Continued industry viability

□ Food safety

□ Healthy ecosystems

□ Maintaining our ‘clean and green’ image

□ Preservation of our biodiversity

□ Public health

□ Social amenity

□ Other (please specify)

|  |
| --- |

6. Comments

|  |
| --- |

7. On a scale of 1-7, with 1 being strongly disagree and 7 being strongly agree, how do you feel about the following statements.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 strongly disagree | 2 | 3 | 4neither agree or disagree | 5 | 6 | 7strongly agree |
| Everyone in the State has a responsibility for biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Biosecurity is mainly the responsibility of government  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Biosecurity is mainly the responsibility of those that create biosecurity risks  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Biosecurity is mainly the responsibility of industries that benefit from the management of pests, weeds and diseases  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Biosecurity is mainly the responsibility of whomever uses the land and water resources (e.g. fishers, campers, bushwalkers, urban and rural landholders etc.)  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

Comments

|  |
| --- |

8. The following statements relate to possible principles to guide biosecurity policy and actions. Please provide your agreement or disagreement with each statement.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 strongly disagree | 2 | 3 | 4neither agree or disagree | 5 | 6 | 7strongly agree |
| A well-managed biosecurity system is important for my sector / area of interest  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| It is important for everyone to minimise the spread of pests, weeds and diseases  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Working together on biosecurity results in improved outcomes for my sector / area of interest  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Those impacted by pests, weeds and diseases should have the opportunity to be involved in decisions about the biosecurity issues affecting them  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Those whose activities are a risk to Western Australia’s biosecurity should contribute to the costs of minimising the risk  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Those who benefit from biosecurity programs should contribute to the costs  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The main focus of the State government, in terms of biosecurity, should be prevention, early detection and early eradication  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

Comments

|  |
| --- |

9. The following statements relate to possible principles to guide biosecurity education and awareness. Please provide your agreement or disagreement with each

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 strongly disagree | 2 | 3 | 4neither agree or disagree | 5 | 6 | 7strongly agree |
| It is important that WA industries are aware of biosecurity issues within the State  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| It is important that WA communities are aware of biosecurity issues within the State  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Industry groups/organisations should encourage biosecurity practices to their members  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Industry groups/organisations should keep their members informed about pests, weeds and diseases  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Community groups/organisations should encourage biosecurity practices among their members  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Community groups/organisations should keep their members informed about pests, weeds and diseases  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Industry groups/organisations should undertake activities to raise awareness within the general community of biosecurity issues  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Government agencies should encourage biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Government agencies should keep industries and the general public informed about pests, weeds and diseases  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I expect the general community to have an awareness of biosecurity threats  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

Comments

|  |
| --- |

10. The following statements relate to possible principles to guide biosecurity policy and actions. Please provide your agreement or disagreement with each statement.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 strongly disagree | 2 | 3 | 4neither agree or disagree | 5 | 6 | 7strongly agree |
| Biosecurity activities must be targeted to areas of greatest risk  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The benefits of biosecurity activities should always outweigh the costs  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Decisions relating to biosecurity should consider environmental, social and economic factors  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| We need to keep looking for new ways to address pests, weeds and diseases  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Reporting of suspicious pests, weeds and diseases is everyone’s responsibility  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I expect government to have the expertise and resources needed to support an effective biosecurity system I expect industry to have the expertise and resources to undertake relevant biosecurity activities  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Industry and community stakeholders should have input to biosecurity emergency responses (e.g. to responses to Foot and Mouth Disease, Avian Influenza, Myrtle/Eucalyptus Rust)  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

Comments

|  |
| --- |

11. The following have been identified as possible issues or barriers to effective biosecurity in WA. Please indicate to what extent you see these as issues or barriers.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1Not at all an issue | 2 | 3 | 4Unsure | 5 | 6 | 7Extremely important issue |
| Clarity of the role of government agencies, with regard to biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Clarity of the role of industry, with regard to biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Clarity of the role of community, with regard to biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Government communication about biosecurity Industry communication about biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Access to biosecurity information  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Knowing who to contact to report biosecurity-related issues  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Collaboration between government and industry on biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The general community's level of knowledge about biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Industry's level of knowledge about biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The expertise within government to deliver an effective biosecurity system in WA  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The impact of complying with biosecurity regulation on business/industry (e.g. time, costs)  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Government investment in biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Industry commitment to biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The management of pests, weeds and diseases on bordering properties  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Resources to manage pests, weeds and diseases  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Government legislation and/or regulations  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| People not reporting suspicious pests, weeds and diseases for fear of potential repercussions  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Determining how public money should be spent on biosecurity  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The process for identifying public and private benefits of biosecurity activities  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

Other (please specify and rate)

|  |
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13. What do you see as your top needs with regard to maintaining or improving biosecurity for Western Australia?

| 1 | . |
| --- | --- |
| 2 |  |
| 3 |  |

14. What do you see as the key biosecurity roles and responsibilities of:

| My sector / area of interest  | . |
| --- | --- |
| Industry |   |
| Government  |   |
| Community  |   |

15. Please provide any final comments on biosecurity

|  |
| --- |

16. Thank you for taking part in this survey. If you would like a copy of the results, please enter your email address below.

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