Emergency Aquatic Animal Disease Response Awareness Workshop for Abalone – May 2012

Dan Machin

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Title

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- Abalone Council Australia;
- Australian Abalone Growers Association members' businesses;
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    - Southseas Abalone Ltd
    - Oceanwave Pty Ltd
    - Southern Ocean Mariculture
    - Abalone Farms Australia Pty Ltd
    - Abtas Pty Ltd
    - Oceanwave Pty Ltd
- Department of Primary Industry, Parks, Water and the Environment, Tasmania
- Department of Agriculture, Fisheries & Forestry, Canberra
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Industry Members

- Tim Rudge, Coastal Seafarms pty Ltd
- Shane McLinden, Southseas Abalone Ltd
- Joel Gilby, Oceanwave Pty Ltd
- Mark Gervis, Southern Ocean Mariculture
- Dean Broughan, Abalone Farms Australia Pty Ltd
- Nick Savva, Abtas Pty Ltd
- Peter Rankin, Oceanwave Pty Ltd
- Dean Lisson, Chief Executive Officer, Abalone Council Australia
- Dan Machin, Executive Officer, Australian Abalone Growers Association

Government Officers

- Dr Kevin Ellard, Department of Primary Industry, Parks, Water and the Environment, Tasmania
- Dr Brett Herbert, Department of Agriculture, Fisheries & Forestry, Canberra
- Dr Tracey Bradley, Department of Primary Industry, Victoria
- Dr Shane Roberts, Primary Industry and Resources, South Australia
- Dr Brian Jones, Department of Fisheries, Western Australia

PRINCIPAL INVESTIGATOR: Dan Machin

ADDRESS: Australian Abalone Growers Association
PO Box 1190
Booragoon WA 6954

OBJECTIVES:

Objectives of the project were:

- Increase industry awareness of established governance arrangements, roles, responsibilities, procedures and resources for aquatic animal disease responses—at the industry, state and national level;
- Identify any weaknesses in current arrangements that may constitute a threat to industry, in particular to, productivity improvement, trade and market access; and identify priority actions to mitigate those threats; and
- Raise awareness of the potential benefits of formal joint industry / government aquatic animal disease response arrangements.

Non Technical Summary

OUTCOMES ACHIEVED TO DATE

Improved awareness and understanding of the establish procedures and responsibilities for abalone emergency disease responses;

Improved improve industry's emergency response capabilities.

Identified actions that could improve the prevention and emergency aquatic animal disease response arrangements.

An emergency aquatic animal disease response awareness workshop for Abalone was held at the Airport Quality Hotel, Tullamarine, Victoria on 21 May 2012. Departmental officers from aquatic animal health areas from Western Australia, South Australia, Tasmania, Victoria and the Australian Capital Territory; and abalone farming representatives and commercial fishing representative attended the workshop.

Biosecurity underpins export trade. Part of maintaining Australia's aquatic biosecurity track record is to improve the awareness and preparedness within specific industry sectors of Federal & State government's emergency response arrangements.

Emergency aquatic animal responses often involve complex, multi-lateral, inter- and intra-jurisdictional arrangements, and also can have specific trade and market access responsibilities that need to be managed.

The workshop raised awareness of emergency management of aquatic animal diseases as they relate to abalone (both wild and farmed) on national and state levels; and identified actions to improve the current arrangements. The areas of actions were identified and listed under the following two categories – (a) Prevention and (b) Response

(a) Prevention

Harmonisation

- Develop a nationally agreed quality management system for basic biosecurity standards, audits, audit checklists and certification. This must include:
    - Health accreditation programs to demonstrate regional, zone and compartment freedom of notifiable diseases. This must be undertaken to World Organisation for Animal Health (OIE) standards and DAFF guidelines;
    - Harmonised biosecurity planning templates;
    - Harmonised Biosecurity audit checklist;
    - Basic biosecurity arrangements and quality management system eg. certification, audit and audit guidelines, accreditation of auditors; and
    - Surveillance to support zone and compartment freedom.
- Establish a national standard for translocation risk assessments and the governance of decision making;

(b) Response

Capacity

- There is need for
    - an Aquatic Animal Emergency Disease Response Agreement (AAEDRA)
    - Multilateral agreement on the ownership, maintenance and use of the Seafood Incident Response Plan.
- Ensure capacity of the fish health diagnostic capability within each State and Territory.
- Diagnostic validation testing;
- Validation of sentinel abalone;
- Development of rapid diagnostic test and the extension to labs across Australia;
- Development of cell lines;
- Development of detection method for sub-clinical infections;
- Development of measure tools for the health/immune-competency of herd; and
- Development and extension of:
    - Emergency diseases response preparedness training;
    - Industry use and continually improve its Seafood Incident response Plan
    - Destocking and decontamination of the Tasmanian abalone farms case study;

KEYWORDS: Abalone, Workshop, Biosecurity, aquaculture, Disease, emergency.

Background

Biosecurity underpins export trade amongst other things. Part of maintaining Australia's aquatic biosecurity track record is to improve the awareness and preparedness within specific industry sectors of emergency response arrangements.

Emergency aquatic animal responses often involve complex, multi-lateral, inter- and intra-jurisdictional arrangements, and also can have specific trade and market access responsibilities that need to be managed.

Need

Since 2005, there have been a number of abalone disease outbreaks, which may have potential trade and market access issues. It is critical that the industry nationally take stock and ensure it captures the wealth of lessons that have been learnt, and gain a common understanding of established procedures and responsibilities, especially how government, processing, commercial fishing and farms can best respond to any future outbreaks.

Objectives

Objectives of the project were:

- Increase industry awareness of established governance arrangements, roles, responsibilities, procedures and resources for aquatic animal disease responses—at the industry, state and national level;
- Identify any weaknesses in current arrangements that may constitute a threat to industry, in particular, to productivity improvement, trade and market access; and identify priority actions to mitigate those threats; and
- Raise awareness of the potential benefits of formal joint industry / government aquatic animal disease response arrangements.

Methods

Departmental officers from aquatic animal health areas from the Dept. of Fisheries Western Australia, South Australia, Tasmania, Victoria and Australian Capital Territory; abalone farm and commercial fishing representatives were invited and attended the workshop (see Appendix 2 for a list of workshop participants).

The workshop agenda included the following topics and is also attached in appendix 3:

1. Overview of the sector:
    a. Nature of the industry—production, trends, technology
    b. Disease risks—domestic and international
2. Established Emergency disease response arrangements
    a. Current industry vessel/enterprise level biosecurity, including surveillance by State.
    b. State preparedness and response arrangements, and responsibilities

   c. National preparedness and response arrangements, and responsibilities, including trade matters and OIE standards.
   d. Presentation on status Abalone Working Group on Abalone Emergency Disease Response Agreement
3. Disease incident scenario (facilitated session). This session was based on the SIRP and NAC emergency response training scenario.
   a. Animals are dead and dying – what next?
   b. Events, actions, responsibilities and implications
   c. Identify risks to successful response
   d. Identify actions to mitigate risks
4. Wrap up (facilitated session)
   a. Prevention – recap risks of disease outbreaks (enterprise level) and appropriate treatments
   b. Response – recap risks to an effective response and appropriate treatments
   c. Agreement on priority actions (including responsibilities and time frames)

Results and Discussion

The workshop was a mix of power point presentations, group discussion and simulation exercises. The agenda and presentations are attached at appendix 3. A summary of the key points is provided below. The presentations were e-mailed to all workshop participants and other interested parties on 23 May 2012.

Overview of Abalone Industry

Abalone Farming

Dan Machin, Executive Officer, Australian Abalone Growers outlined the multi-jurisdictional nature of abalone farming; per annum rate of industry growth; the industry structure, in terms of representation; sales and marketing; production systems used; the need for innovation to drive productivity; and implementation of better biosecurity measures.

Commercial Fishing

Dean Lisson, Chief Executive Officer, Australian Council of Abalone outlined the multi-jurisdictional nature of abalone fishing; the changes in industry practices that have resulted from entering into live abalone markets, ie they have become abalone stress managers, and resulted in the implementation of better biosecurity measures.

Overview of Abalone Emergency Disease Response

State arrangements

Drs Brian Jones, Kevin Ellard, Tracey Bradley and Shane Roberts provided the following outline for each of the jurisdictions Western Australia, Tasmania, Victoria, South Australia, respectively;

- legislation that regulates emergency disease response biosecurity agreements;
- scope of their Aquatic Animal Health Programs ie translocation;
- fish kill and disease investigations;
- biosecurity planning and plans;
- disease surveillance and emergency response management systems;

Dr Mellissa Walker provided details on New South Wales' arrangements after the workshop, as Dr Walker had prior commitments on the 21st May. This information is included in Appendix 3, along with the above presentations.

National Arrangements

Dr Brett Herbert outlined the current arrangements for managing aquatic animal disease emergencies; the limitations of the current system; possibilities for improvement and the benefits of a formal Aquatic Animal Emergency Disease Response Agreement.

Abalone Diseases

Dr Brett Herbert detailed the national and international abalone diseases of interest; and the need for surveillance to provide scientific evidence to demonstrate proof of freedom from disease.

Working Group EAADRA

Dr Brian Jones outlined the history and rationale for formal Aquatic Animal Emergency Disease Response Agreement; the work undertaken by the working group, under the Aquatic Animal Health Committee, between 2008 to 2010, to develop a sample EAADRA and the issues that were identified; and a possible way forward.

Disease incident scenario

A disease incident scenario was conducted. The scenario was stock losses and detection of herpes virus in oysters, with abalone farms implicated as the origin with risks to human reported in the media.

The following key discussion points were raised in the workshop wrap up:

Key Discussion Points

Australia's aquaculture is free from many disease and pests that occur overseas, which provides Australia with a comparative advantage in global trade. However, new and emerging diseases continue to threaten our conditions of trade, especially going forward as our international trading partners increase Phyto-sanitary certification requirements.

In addition, the regulation of translocation is restricting trade between the States and territories of gametes, eggs, broodstock and juvenile stock, in particular, in species that operate trans-nationally. This regulatory risk will significantly restrict productivity gains, generated through national breeding programs and regional specialisation of specific elements of the production system. Ultimately, if this matter is not resolved, these sector's will become unviable.

On the above basis, the areas of actions were identified and listed under the following two categories – (a) Prevention and (b) Response

(a) Prevention

Harmonisation

- Develop a nationally agreed quality management system for basic biosecurity standards, audits, audit checklists and certification. This must include:
    - Health accreditation programs to demonstrate regional, zone and compartment freedom of notifiable diseases. This must be undertaken to OIE standards and DAFF guidelines
    - Harmonised biosecurity planning templates
    - Harmonised Biosecurity audit checklist
    - Basic biosecurity arrangements and quality management system eg. Certification, audit and audit guidelines, accreditation of auditors.
    - Surveillance to support zone and compartment freedom.
- Establish a national standard for translocation risk assessments and the governance of decision making;

(b) Response

Capacity

- There is need for
    - an aquatic animal emergency disease response agreement (AAEDRA)
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- Ensure Capacity of the Fish Health diagnostic capability within each State and Territory.
- Diagnostic validation testing;
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- Development of measure tools for the health/immune-competency of herd; and
- Development and extension of:
    - Emergency diseases response preparedness training;
    - Industry use and continually improve its Seafood Incident response Plan
    - Destocking and decontamination of the Tasmanian abalone farms case study;

Benefits and adoption

The major benefit was the increased knowledge and understanding of the powers, role(s) and responsibilities of Federal and State governments and those of industry.

The workshop highlighted the need for an integrated management of the sector, which includes three pillars (1) an harmonised biosecurity system; (2) Emergency

response agreements and preparedness framework; and (3) on-going fish disease diagnostic research and development.

The workshop has utilised knowledge developed from previously FRDC funded projects on abalone health, disease risk, translocation and seafood incident response plan (SIRP).

The advice from this project will inform authorities and industry on the level of harmonisation and response capacity needed to continuously improve basic biosecurity conditions, in order that Australia meet its national and international biosecurity and trade agreements obligations.

Further Development

It was agreed that AAGA would progress the recommendations as outlined in the results/discussion as part of its work plan and collabourate with DAFF, relevant state agencies, FRDC and its Sub-committee Aquatic Animal Health to achieve these ends.

Based on informal feedback the following recommendations are made:

- Increase the participation of the abalone (commercial & recreational) fishing and farming sectors at any future workshops;
- Run an annual workshop, as part of the respective sectors annual general meetings;
- DAFF should develop an emergency disease playbook to ensure the rehearsals are effective, and enable the systemic testing of specific elements of the emergency disease response process.
- Collation of all the emergency disease response workshop findings to establish any common themes.

With respect to increasing the participation of future forums; invitations to forum such as these should be extended to the relevant host State's industry representative and advisory bodies and the national peak bodies. Due to the dynamic nature of membership of these organisations and/or bodies, a list of relevant stakeholders should be requested from FRDC in the first instance. In this project's case, at the time of arranging this workshop the principal investigator was not aware that Australian Council of Abalone did not represent all of the interests of Australian abalone commercial fishing sector. On this basis, and regrettably, the Victorian abalone commercial fishing and processors associations and their members did not receive the Australian Abalone Growers' open invitation.

Planned Outcomes

The aim of the workshop program was to

- Improved awareness and understanding of the establish procedures and responsibilities for abalone emergency disease responses;
- Improved improve industry's emergency response capabilities.
- Identified actions that could improve the prevention and emergency aquatic animal disease response arrangements.

All of the above outcomes were achieved due to the (i) use of the action learning cycle; (ii) participation of the majority of industry and government aquatic health experts; (iii) use of SIRP and National Aquaculture Council's emergency response training modules; and (iv) a facilitated workshop to capture the participants' reflections on ways to improve the biosecurity arrangements to both prevent and respond to emergency diseases.

Conclusions and recommendations

The workshop is a valuable vehicle for the exchange of knowledge, ideas, and information on emergency disease responses.

The above lack of national harmonisation of biosecurity arrangements, to OIE standards, presents a threat to (1) industry productivity gains needed for the industry to remain viable; and (2) International market access with key trading partners in Japan, Hong Kong, China and Malaysia.

The following three pillars will underpin market access:

1. an harmonised biosecurity system, which must include health accreditation programs that meets the OIE standards;
2. Emergency response agreements and preparedness framework; and
3. On-going fish disease diagnostic research and development.

These pillars will require multi-lateral arrangements between governments and industries to share responsibilities for prevention and emergency activities and should be subject of further work.

References

No references were used in the preparation of this report on the workshop.

Appendix 1: Intellectual Property

It has been identified that no new intellectual property was developed from the workshop.

Appendix 2: List of Participants and their respective affiliation(s)

Industry Members

- Tim Rudge, Coastal Seafarms pty Ltd
- Shane McLinden, Southseas Abalone Ltd
- Joel Gilby, Oceanwave Pty Ltd
- Mark Gervis, Southern Ocean Marinculture
- Nick Savva, Abtas Pty Ltd
- Peter Rankin, Oceanwave Pty Ltd
- Dean Lisson, Chief Executive Officer, Australian Council of Abalone
- Dan Machin, Executive Officer, Australian Abalone Growers Association

Government Officers

- Dr Kevin Ellard, Department of Primary Industry, Parks, Water and the Environment, Tasmania
- Dr Brett Herbert, Department of Agriculture, Fisheries & Forestry, Canberra
- Dr Tracey Bradley, Department of Primary Industry, Victoria
- Dr Shane Roberts, Primary Industry and Resources, South Australia
- Dr Brian Jones, Department of Fisheries, Western Australia

Appendix 3: Workshop Agenda & Presentations

Abalone Emergency Disease Repsonse Awareness Workshop

Time	Topic
9:00	Nature of the Abalone Farming industry—production, trends, technology (Dan Machin, AAGA)
9:20	Nature of the Abalone Fishing industry—production, trends, technology (Dean Lisson, ACA)
9:40	Disease risks—domestic and international (Brett Herbert, DAFF)
10:30	Established Emergency disease response arrangements – Victoria (Tracey Bradley, DPI Vic)
10:50	Established Emergency disease response arrangements – Tasmania (Kevin Ellard, DPIPWE)
11:10	Established Emergency disease response arrangements - South Australia (Shane Roberts, PIRSA)
11:30	Established Emergency disease response arrangements – Western Australia (Brian Jones, DoF)
11:50	National preparedness and response arrangements, and responsibilities, including trade matters and OIE standards (Brett Herbert, DAFF)
12:10pm	Status Abalone Working Group on Abalone Emergency Disease Response Agreement - (Brian Jones, DoF)
1:30-5pm	Disease incident scenario – Abalone are dead and Dying: what next ? (Facilitated by Dan Machin)

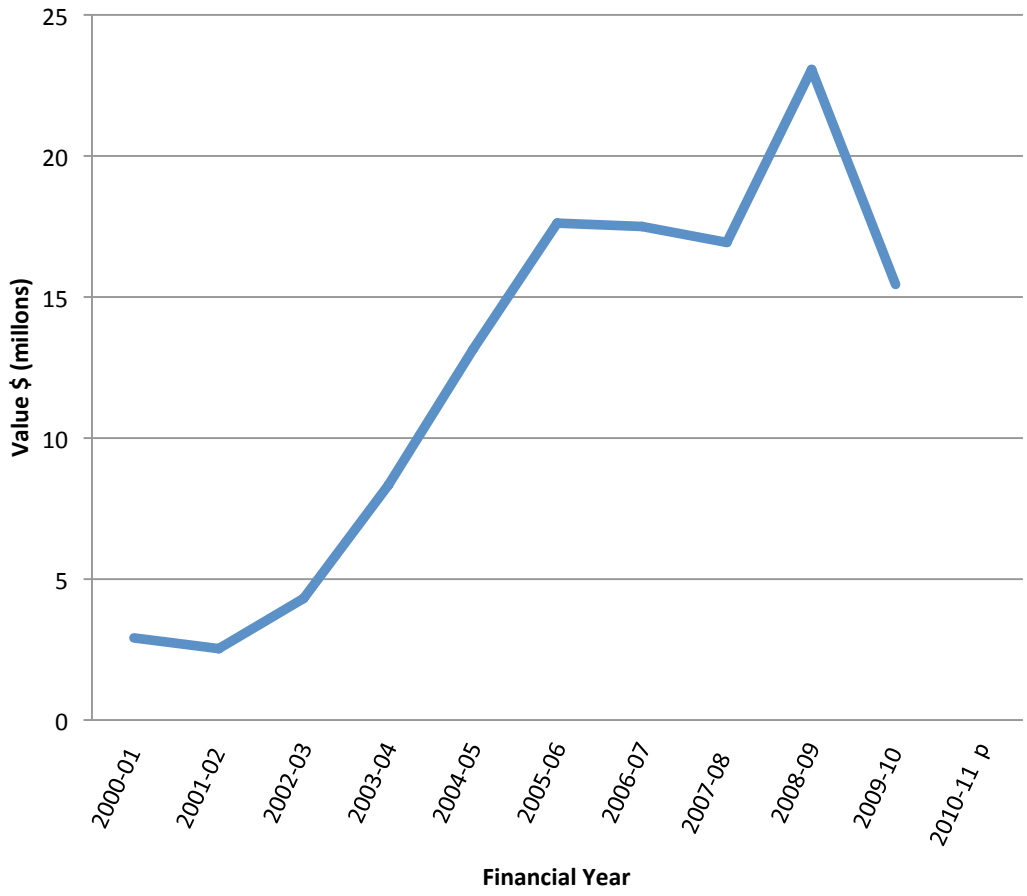
Status of Australian Abalone Farming 2012

Overview

- Locations
- Sectoral Trends
- Industry Structure
- Biosecurity


AUSTRALIAN
ABALONE
GROWERS ASSOCIATION
Arafura Sea
Timor-Leste
Timor Sea
Gulf of Carpentaria
Ashmore and Cartier Islands
Coral Sea Islands
Coral Sea
Australian Tro
Australia
Streak Bay Aquaculture
Australian Bight Abalone Ltd
SAM Abalone
Southern Australian Seafoods
Kangaroo Island Abalone
888 Abalone Pty Ltd
Coastal Seafarms
Oceanwave Seafoods Pty Ltd
Great Southern
Southern Ocean Mariculture
Abtas Marketing Pty Ltd
Abalone Farms Australia
Cold Gold Pty Ltd
©2010
© 2011 Google
© 2011 Tele Atlas
© 2011 Whereis® Sensis Pty Ltd
© 2011 Europa Technologies
25°57'22.62" S 132°37'50.52" E elev 408 m

Sectoral Growth



- Growth is 11% per annum (2004-10).

Industry Structure

- AAGA represents and services members who produce over 90% of Australia's aquaculture farmed product.
- Export Market Focus
  - Ausab
  - Great Southern Waters
- Production System
  - Land Based Pump ashore
  - In the Future: off-shore production platforms will enable businesses to capture greater economies of scale and reduce energy inputs.
- Innovation will be critical to remain competitive.

Biosecurity

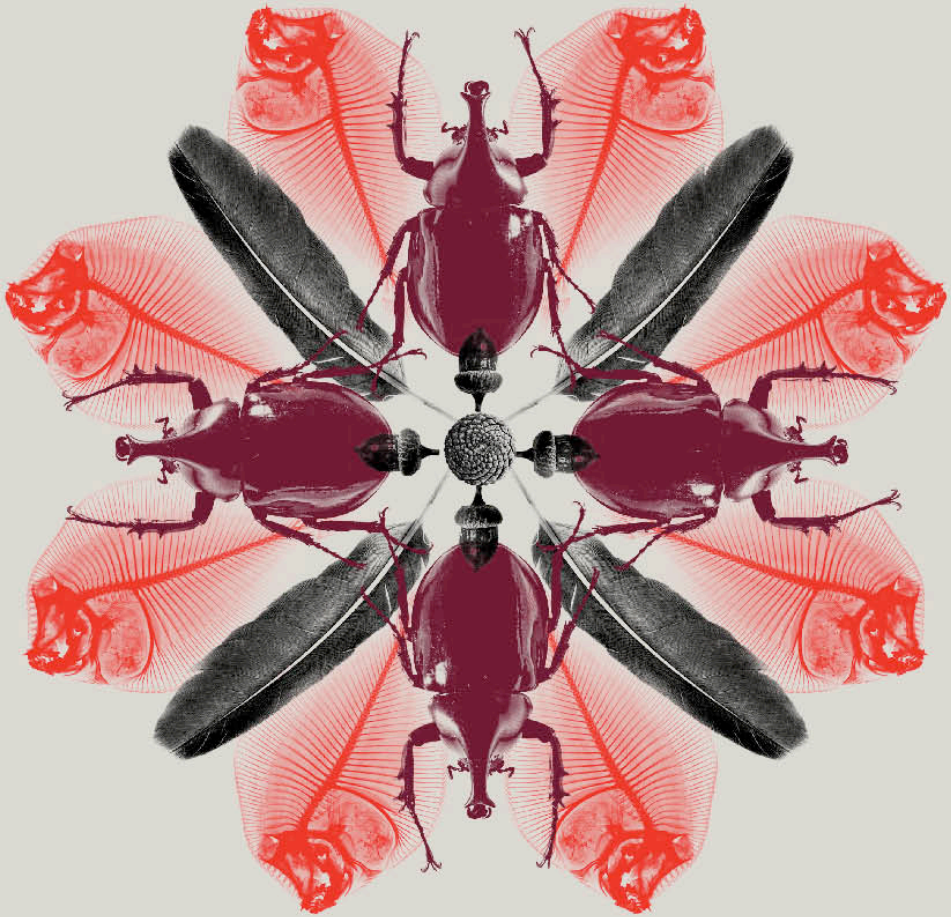
- Biosecurity planning and plans are well established.
- Integrated into quality management systems
- Surveillance Program – fit for purpose (ISO 9001, OIE & multi-lateral trading partners)
- Need for harmonisation of standards (Biosec & surveillance), audit guidelines, accredited auditors and service providers.

Australian Government

Department of Agriculture, Fisheries and Forestry
Biosecurity

Abalone Disease risks

Domestic and international



Brett Herbert

21 May 2012

Domestic Disease Risks

You will be aware of the diseases we know about. AVG, Perkinsus and Vibrio infection can be important in Australian abalone production. Stress is an important factor in expression of all these diseases, as is the introduction of exotic strains to naïve populations.

AVG

There is risk of AVG translocation through:

- illegal activities
- movement of abalone for human consumption and subsequent release into the environment
- use of contaminated materials for bait
- translocation of stock for other purposes.

Expression of AVG in wild abalone is also a risk. In Tasmania AbHV is endemic but no active disease has been observed. Until we know the risk factors associated with expression of the disease wild populations remain at risk.

Perkinsus

Perkinsus caused extensive mortalities in wild abalone in NSW about 10 years ago and in South Australia prior to that

Stocks may recover after a fallow period in some areas

P. olseni survives freezing to -60° so waste from processing could be infectious

While *Perkinsus* is endemic in many areas there are areas free of the parasite

Haliotis rubra appear to be more resistant to disease than *H. laevigata* in some circumstances

Risk from environmental stress factors is still an issue- they are not well understood

Vibrio

Vibrios are ubiquitous so control relies on maintenance of hygiene and minimising stress

More of an issue in intensive situations

As bacteria can exchange resistance factors and with increasing antimicrobial resistance in the environment, there are risks for intensive holding, hatchery or rearing environments

International Disease Risks

Abalone diseases worldwide

There are over 100 diseases and parasites of abalone world wide.

There are undoubtedly many more undiscovered pathogens of abalone.

Translocation of South African abalone to California in the 1980's without adequate quarantine resulted in introduction of one parasite and was associated with appearance of withering syndrome.

Populations of four species of abalone in California have been slow to recover. Disease is one factor among many associated with this slow recovery.

Withering syndrome

Known from North America west coast, Chile, Iceland and Europe. An outbreak in one farm in Japan eradicated (2011)

Spread associated with translocation of abalone for aquaculture purposes and restocking, and use of contaminated seaweed for farmed abalone food

Likely source was South African abalone imported into USA for aquaculture

Has had devastating impact on wild abalone and farmed stocks also

Viral mortality

Known in abalone from China and nearby countries and has caused severe mortalities in both wild and cultured stocks

Separate syndromes in northern and southern areas but little known about whether they are the same pathogen affecting different stocks or otherwise

At least three small viruses recognised but available knowledge about them is very limited

Is associated with *Vibrio* infection but viruses are considered to be the primary pathogens

Farming methods changed (land based) and reduced losses

There are AVG-like viruses in Asia, and one known from Taiwan which has caused disease

Vibrio

Vibrios have been associated with mass mortalities of abalone overseas, particularly in China.

Vibrio fluvialis II caused lesions and 50-60% mortalities in wild and farmed stocks

Vibrio harveyi causes summer mortality in European abalone

Usually *Vibrio* infections are associated with poor husbandry or management, but this is not always the case.

Labyrinthuloides haliotidis

A poorly known parasite that resulted in the demise of attempts at aquaculture of abalone in Western Canada.

Labyrinthomorpha are primitive fungus-like protozoa

>90% mortality in small abalone in culture facility

Believed to be persistent in the environment for long periods but little else known

Sabellid polycheate

Impacted abalone aquaculture in California after introduction of live abalone from South Africa. Also affects abalone culture in South Africa where management is poor.

Does not appear to have established in wild abalone in California

Was transported in abalone used for reseeding and also in seaweed harvested to feed farmed abalone

Not directly pathogenic but caused reduced growth and survival, and deformity

Perkinsus

Australia already has issues with *Perkinsus* .

There are a number of other species of *Perkinsus* causing problems in abalone culture and wild stocks overseas

Conclusion

Australian import regulations regarding quarantine comply with OIE guidelines and manage risk

Surveillance to provide additional data to show ‘freedom’ is very useful for supporting trade related controls-both within Australia and for exports

Many of these agents may be at extremely low prevalence and therefore essentially undetectable, or are benign until conditions change.

A major risk is the unknown-diseases that are there but are only expressed when environmental conditions are right.

These may include temperature, salinity, other water quality issues, changes in the ecological balance (e.g. reservoir species increase, predator decrease allows infected individuals to live longer etc).

Victorian Emergency Response Arrangements

- Victoria has well-established emergency management arrangements overseen by the Office of the Emergency Services Commissioner and underpinned by the Emergency Management Act 1986.

- Victoria's arrangements are described in the Emergency Management Manual Victoria, which includes an all hazards approach and an integrated and comprehensive system covering prevention, response and recovery.

The Victorian Government has a world-class early response capability for emergency animal diseases through its Emergency Animal Disease Preparedness program. The program provides Victoria with the necessary processes, tools and skilled people to respond to disease incursions using the AUSVETPLAN model. This is achieved by:

- participation and training in the national framework for development of response capabilities
- maintenance and continued development of surveillance and response tools and systems
- cooperation and engagement with industry groups to raise awareness and preparedness in industry participants
- improving the preparedness and capability of the Victorian Government and stakeholders to respond to an emergency animal disease incursion by conducting disease response exercises.

Biosecurity Implementation Plan 2010 to 2013

  - with other states and territories, develop an agreement on managing emergency responses to disease outbreaks in aquatic animal species. The emergency aquatic animal disease response agreement will provide certainty to the states and territories, the Commonwealth and industry on their respective roles and responsibilities if a significant aquatic disease outbreak was to occur. This agreement will not only cover actions undertaken, but also cost sharing. (Biosecurity Strategy Action 1.4)
  -

- Victoria will investigate the need for formal agreements such as memoranda of understanding (MOU) implementation of legislation and cost-sharing agreements with other government or industry organisations to provide financial and resource support for an emergency response.

- Victoria will continue to influence the development and maintenance of nationally agreed policies, plans and guidelines to manage incursions. Such guidelines will ensure coherence of emergency response plans and provide operational and procedural compatibility between Australian, state and territory authorities and emergency management organisations

Dealing with Fish Health Emergencies

Tasmanian DPIPWE

Tasmania
DEPARTMENT *of*
PRIMARY INDUSTRIES,
WATER *and* ENVIRONMENT

Role of plans

- General rather than specific details
- Communication protocols
  CVO, Labs, Commonwealth, Industry, Gov, Public
- Allocation of tasks
- Agreement on provision of resources
- Describe statuary obligations

Tasmania
Explore the possibilities

‘Tasmanian Animal Disease Emergency Plan’

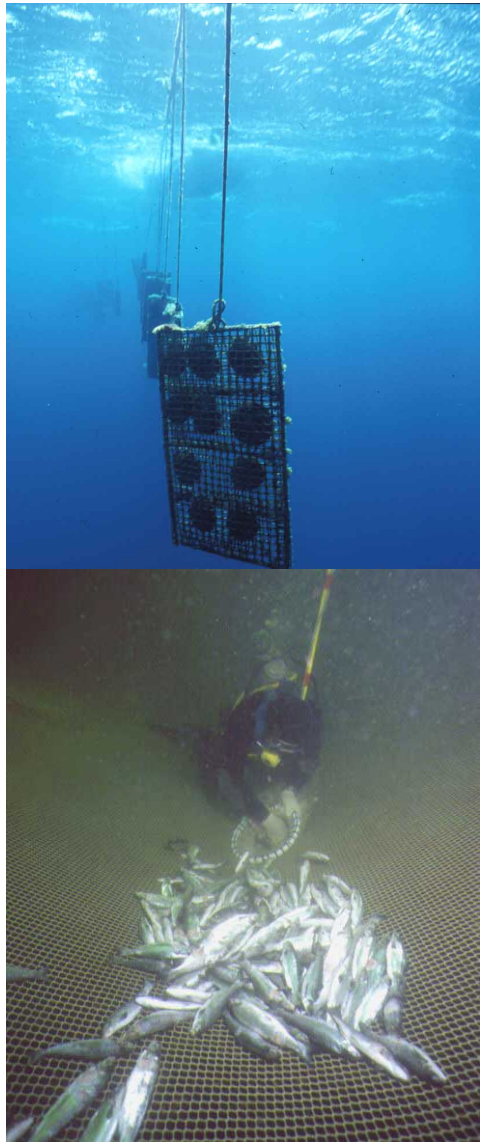
‘Tasmanian Fish Health Emergency Response Plan’

- Merge both plans into one
- Develop MOU’s with other organisations
- Move to ‘Incident Control System’ (AIIMS)
- Develop SOP’s
- Accreditation of production facilities

Tasmania
Explore the possibilities

Biosecurity Plans

- Hazards and critical control points
- Movement restrictions
- Surveillance and testing procedures
- Decontamination procedures
- Emergency procedures
- Routine cleaning and maintenance
- Water treatments
- Contacts
- Available to all



Tasmania
Explore the possibilities

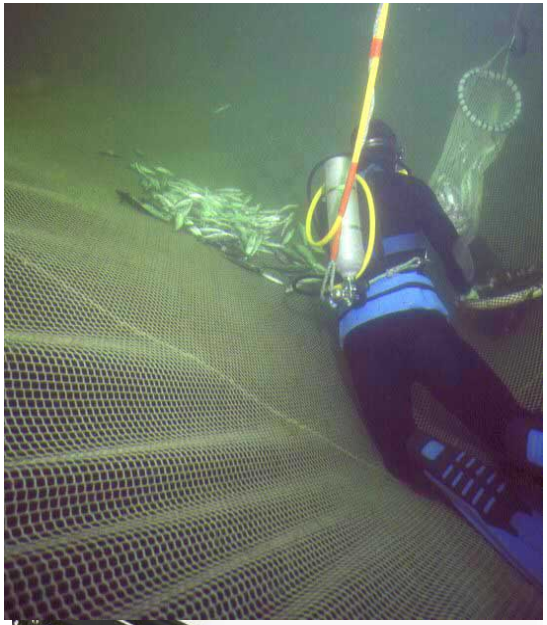
Issues

- Communication
  - Common message, regular updates to producer
- Training of staff for specific roles
  - Incident management, disease investigation.
- Additional technical advice
  - Seeking advice from experts, compilation of data, making decisions when information not available.

Tasmania
Explore the possibilities

Issues

- Logistical support from industry
  - Agreed methods of isolation, destruction, disposal & decontamination
- Disposal of infected material
  - Identification of acceptable sites, capacity of sites (>100 tonne)
- Identification of supply avenues for chemicals & equipment



Biosecurity Plans

- Procedural rather than philosophical
- Identify biosecurity risks
- Document management procedures
- Should be accompanied by a series of SOP’s
- Plans may be at the State, industry or enterprise level (or all)

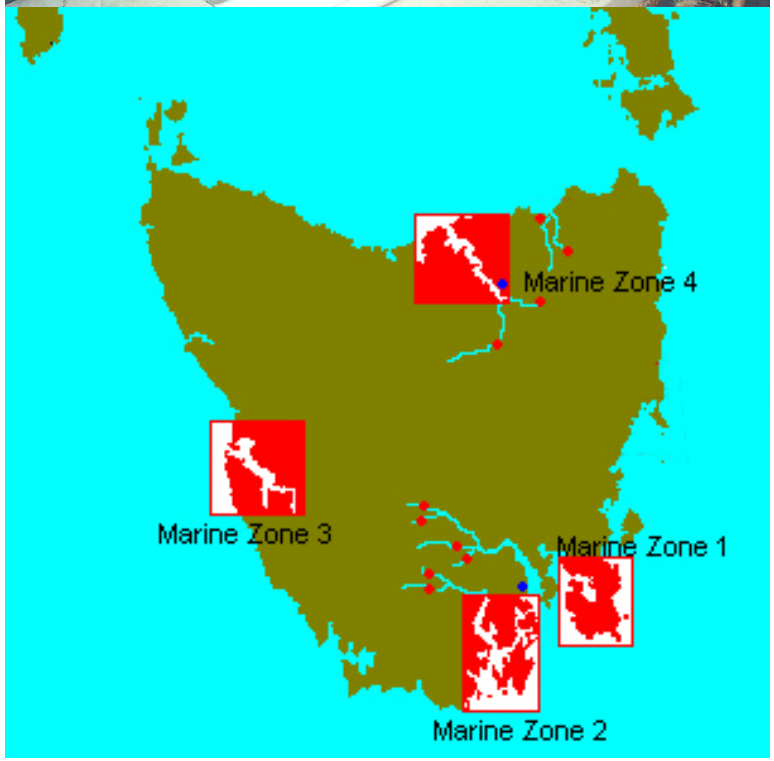
Tasmania
Explore the possibilities

Issues

- Responsible authority
  - Legislation to be used, *Disease vs Fisheries.* Emergency measures and ongoing management.
- Identification of critical control points
  - Supply of appropriate staff & equipment in sufficient numbers when required.
- Industry agreement
  - Prior agreement with roles and responsibilities

Concept of compartments

- Compartments boxes, albeit boxes with holes
- Define areas in which a population of known disease status exists
- May be large or small
- Compartments vs. zones
- Multiple layers, compartments within compartments



Tasmania
Explore the possibilities


Tasmania
Explore the possibilities

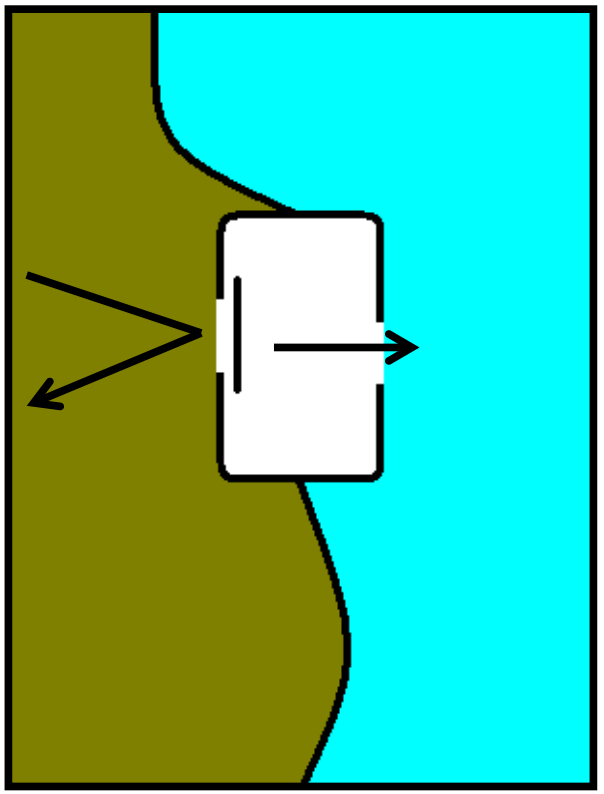
Movement restrictions within the state

- Tas DPIW currently undertaking an assessment of biosecurity of farmed and wild abalone industries
- Assessment may involve the introduction of movement control zones
- Based around five separate fishing zones

Direction of biosecurity

Entry level biosecurity

- Aim to maintain disease free status within the compartment
- Manages entry into the compartment
- Often associated with surv.
- Not concerned with items leaving the compartment
- Management of abalone stocks entering farms

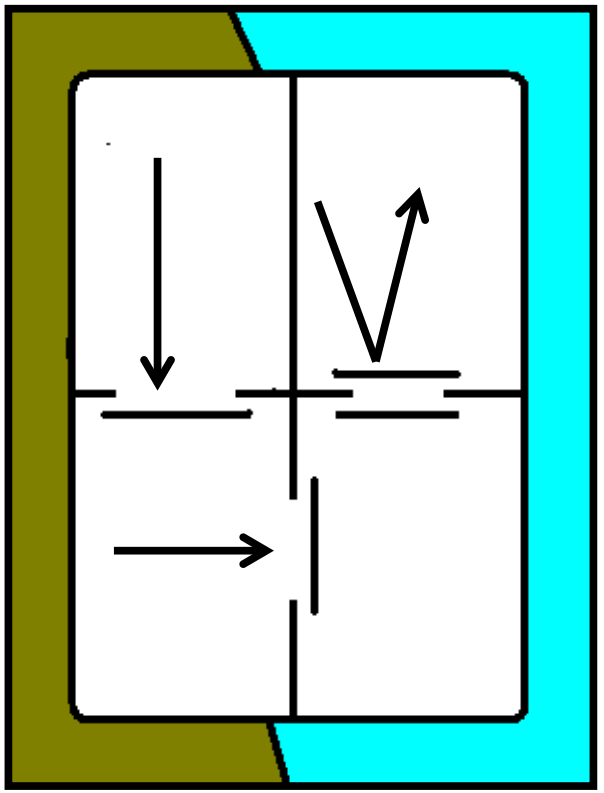


Tasmania
Explore the possibilities

Direction of biosecurity

Internal biosecurity

- Biosecurity measures undertaken within compartment borders
- Usually includes hygiene measures
- Also movement of stock, water, people and equipment within the facility
- Separation of species and year classes

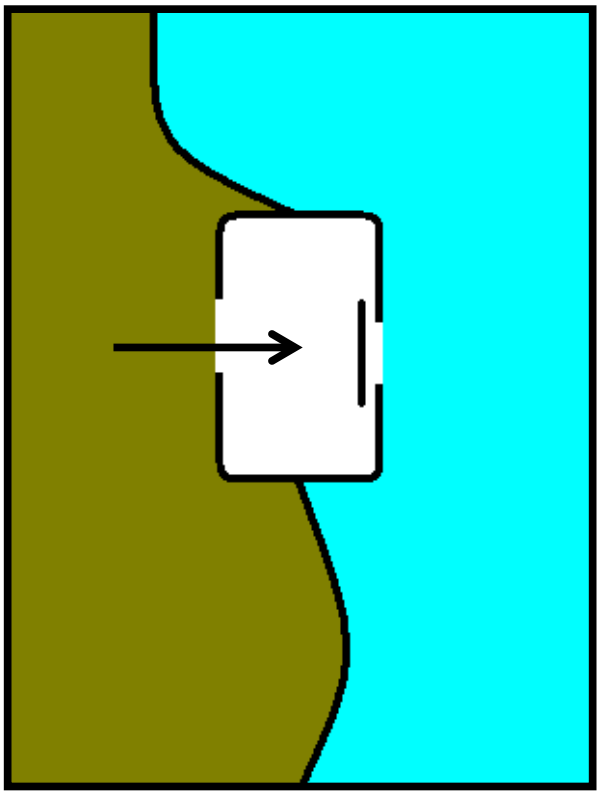


Tasmania
Explore the possibilities

Direction of biosecurity

Exit level biosecurity

- Aims to protect populations outside the compartment
- Manages movements out of facility
- Does not normally control entry onto the facility
- Management of water exiting abalone processors in Tasmania



Tasmania
Explore the possibilities

Outcomes from workshop: Tasmanian view

A one-size fits all approach to disease control and translocation is unlikely to be successful;

- epidemiology and clinical expression of disease varies between specific pathogens, host and environment under which they are held
- knowledge of test sensitivity and specificity for aquatic disease pathogens is extremely poor
- Acceptable risk and consequence may vary between states

- Aim for common testing requirements for specific pathogens within specific industries
- Move toward accreditation of facilities through ongoing testing and inspection programs

Previous Surveillance Activities

- Prior to 2006 - Passive surveillance of farms and wild fishery through voluntary submission of samples.
- 2006 - Following detection of AVG in Vic. Active testing of farms for AVG and perkinsus. Active testing of high risk regions within wild fishery.
- 2007 - Tasmanian Abalone Biosecurity Project.
- September 2008 - Detection of AVG in a Tasmanian processor. Extensive testing wild fishery and farms for AVGV as part of an EAAD response.
- 2009, future surveillance activities need to be negotiated and established with industry.

Pre-08: Active testing of farms

- Objective: To provide assurance that Tasmanian populations of farmed abalone are free of AVG and perkinsis.
- Program designed to provide assurance on a state-wide basis rather than individual property certification.
- Inspection, sampling, testing and costs undertaken by DPIW.
- Basic tests used, histopathology and perkinsus digest test. Samples also stockpiled for later PCR testing.
- Property visits and sample collection 2x per year. 30 abalone per visit from high risk populations using mortality records as a guide.

2007: Tasmanian Abalone Biosecurity Project

- Project designed to look at all aspects of biosecurity for the farmed, wild and processing abalone industries in Tasmania, including:
  - **surveillance and monitoring**
  - **emergency response**
  - **property accreditation and biosecurity**
  - **translocation of stock and equipment**
  - **State border control**
  - **standard operating procedures**

Tasmania
Explore the possibilities

Pre-08: Active testing

Table 1: Abalone testing summary for July 2006 to June 2007

	No. of submissions for laboratory testing	No. of abalone tested	No. abalone tested as part of active surveillance	No. of abalone tested as part of passive surveillance
Farmed abalone	14	466	274	192
Wild abalone	7	71	62	9
Total	21	537	336	201

Table 2: Abalone testing summary July 2007 to June 2008

	No. of submissions for laboratory testing	No. of abalone tested	No. abalone tested as part of active surveillance	No. of abalone tested as part of passive surveillance
Farmed abalone	36	570	379	39
Wild abalone	11	344	439	57
Total	47	914	818	96

Tasmania
Explore the possibilities

Pre-08: Active testing of high risk wild populations

- Objective: To provide assurance that populations within specific regions of the wild fishery are free of AVG.
- Program designed to provide disease freedom assurance on a regional basis through active testing of wild abalone populations.
- Sample collection by DPIW personnel aboard commercial fishing and research vessels in the northern Bass Strait zone.
- Basic test: Histopathology. Samples also stockpiled for later PCR testing.

2009: Future surveillance activities

- **Surveillance programs must have clearly defined objectives and identified target organisms**
- **Continued state-wide surveillance for perkinsis**
- **Surveillance for AVG must be modified following detection IN Tas.**
- **Need to demonstrate freedom of disease/pathogens**
- **Move from a DPIW run program to a joint enterprise between industry and government**

Do not try this at home – biosecurity is important

Courtesy Kevin Ellard, DPI Tasmania

Emergency disease response and surveillance

South Australia

FISHERIES & AQUACULTURE
PIRSA

Dr Shane Roberts Aquatic Animal Health Officer

May 2012

growing sustainable regions

Government of South Australia

Primary Industries and Regions SA

Overview

- Fisheries & aquaculture in SA
- Disease investigation & response
- Passive and active surveillance

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SA Commercial Fisheries:

Total: 47,500t & $202M (09/10)

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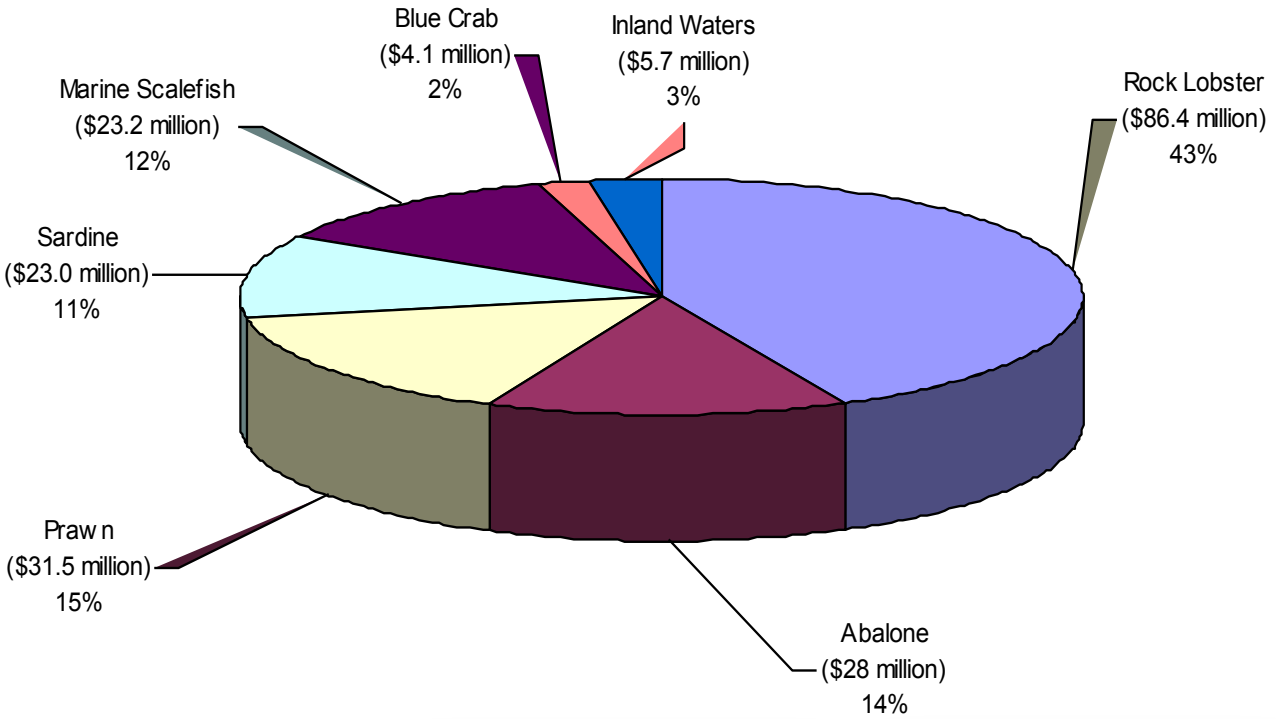

Government of South Australia
Primary Industries and Regions SA

Aquaculture production

Total: 21,500t & $193M 09/10

Ceduna

6,123m dozen

415 tonnes

1,343 tonnes

Adelaide

286 tonnes

Port Lincoln

3,757 tonnes

7,284 tonnes

23 tonnes

PIRSA AAH PROGRAM:

FISHERIES & AQUACULTURE
PIRSA

State Minister
Minister for Agriculture, Food and Fisheries

Federal Minister
Dept of Agriculture, Fisheries and Forestry

PIRSA Fisheries & Aquaculture

PIRSA Biosecurity SA CVO

Animal Health Committee

Aquatic Animal Health Program

SCAAH

PIRSA Disease Response Plan:
Abalone viral ganglioneuritis

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PIRSA AAH PROGRAM:

FISHERIES & AQUACULTURE
PIRSA

- Translocation approvals (movement restrictions)
- Chemical use approvals (disease treatment)
- Fish kill & disease investigations
- Disease surveillance (passive and active)
- Emergency Response (preparedness, response plans, training)
- National biosecurity

Hooper et al. (2007)

LEGISLATION & POLICY

PIRSA F&A Administers 2 Acts:

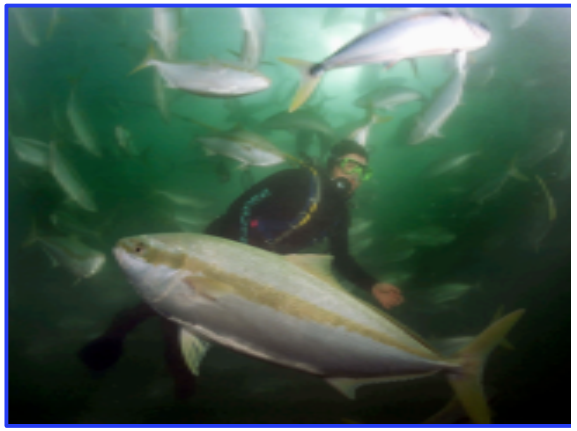
Fisheries Management Act 2007

Conserve & manage aquatic resources

Control of disease in aquatic resources

Aquaculture Act 2001

Promote Ecological Sustainable Development
Minimise environmental impact
Protect health status of aquatic stock



<u>Aquaculture Regulations 2005</u>

- *report unusual mortalities and disease*
- *report notifiable diseases*

Delegated responsibility for parts of:

Livestock Act 1997

Provides for the health and welfare of livestock
Prevent introduction and spread of disease (movement of livestock)
Investigations, control and eradication of disease
Notifiable diseases

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FISHERIES
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Disease Investigation & Response in South Australia:

Government of South Australia

Primary Industries and Regions SA

Animal Disease Response – key drivers

FISHERIES & AQUACULTURE
PIRSA

- **The potential for serious negative economic, social and/or environmental impacts**
- **International obligations** OIE (World Animal Health Organisation)
- **National obligations** (national plans / agreements)
- **State obligations** (SEMP, Emergency Management Act)
- **Government intent** (Biosecurity Strategy)

Community Expectation

Government of South Australia
Primary Industries and Regions SA

Animal Disease Response – key drivers

FISHERIES & AQUACULTURE
PIRSA

- **The potential for serious negative economic, social and/or environmental impacts**
- **International obligations** OIE

NB: Version adopted by the World Assembly of Delegates of the OIE in May 2010

CHAPTER 2.4.1.

INFECTION WITH
ABALONE HERPES-LIKE VIRUS

- **National obligations** (AQUAVETPLAN/ aquatic EADRA ?)

Aquatic Animal Health Plan

- **State obligations** This plan has been prepared pursuant to the provisions of AQUAVETPLAN, the *Aquaculture Act 2001*, the *Livestock Act 1997* and the *Fisheries Management Act 2007*.

- **Government intent**

PIRSA Disease Response Plan:
Abalone viral ganglioneuritis

Community Expectation

Government of South Australia
Primary Industries and Regions SA

Aquatic Animal Disease Response: Investigate

Aquatic Animal Health Plan

This plan has been prepared pursuant to the provisions of AQUAVETPLAN, the *Aquaculture Act 2001*, the *Livestock Act 1997* and the *Fisheries Management Act 2007*.

Report of an AAH incident
Refer to: PIRSA EM Document, AAH Plan

Communication
BSA_pests / PFA_AAHO

Incident type
examples and primary legislation:

Wild Fish Kill
(F.M. Act 2007)
Freshwater
Fish kill protocol (Annex C)

Wild Fish Kill
(F.M. Act 2007)
Marine
Fish kill protocol (Annex C)

Aquatic Livestock
(Livestock Act 1997)
Farm or Aquarium
AAH protocol (Annex B)

Initial Investigation
lead agency:

Collaborative, with following issues investigated by:

BSA – environmental / water quality

PFA – disease

Biosec SA (BSA)
Aquatic pests group

Environmental / water quality likely

Disease likely

PIRSA Fisheries & Aquaculture (PFA)
AAHO

Communication & collaboration

Exceptional mortality

Significant Issue
ie. notifiable or infectious disease outbreak

Emergency Response Phase
(Annex A)
Incident controller:
Biosec. SA, Animal Health Group

PFA and BSA-pests groups would have a role in EMC and general response

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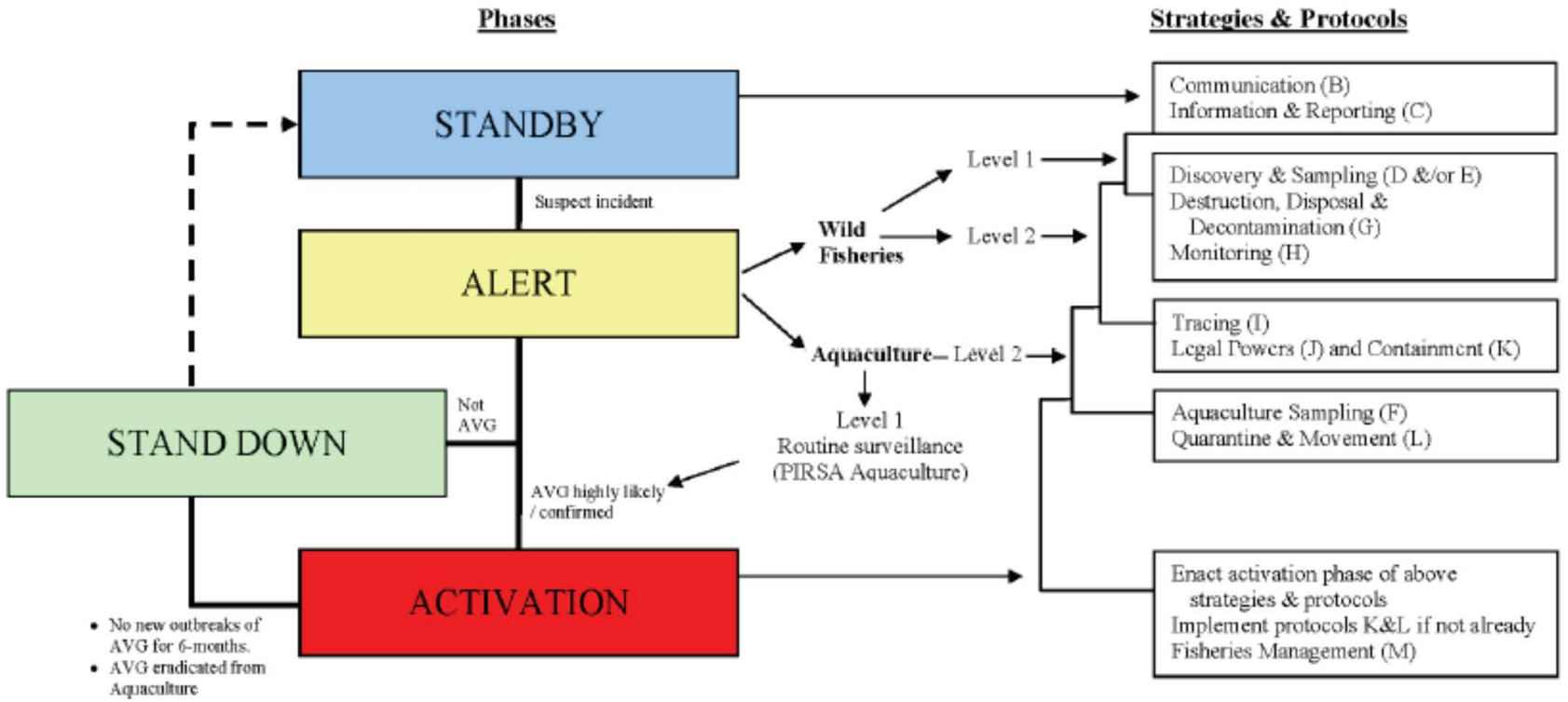
Primary Industries and Regions SA

Aquatic Animal Disease Response: Response

Aquatic Animal Health Plan

This plan has been prepared pursuant to the provisions of AQUAVETPLAN, the *Aquaculture Act 2001*, the *Livestock Act 1997* and the *Fisheries Management Act 2007*.

PIRSA Disease Response Plan:
Abalone viral ganglioneuritis



Aquatic Animal Disease Response: Response

FISHERIES & AQUACULTURE
PIRSA

- **Investigate (confirm disease)**

  PIRSA Fisheries & Aquaculture

- **Full Response: harmonised all sector approach**

  Biosec SA (CVO), PIRSA F&A, State emergency services, industry ….

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Aquatic Animal Disease Response: Response

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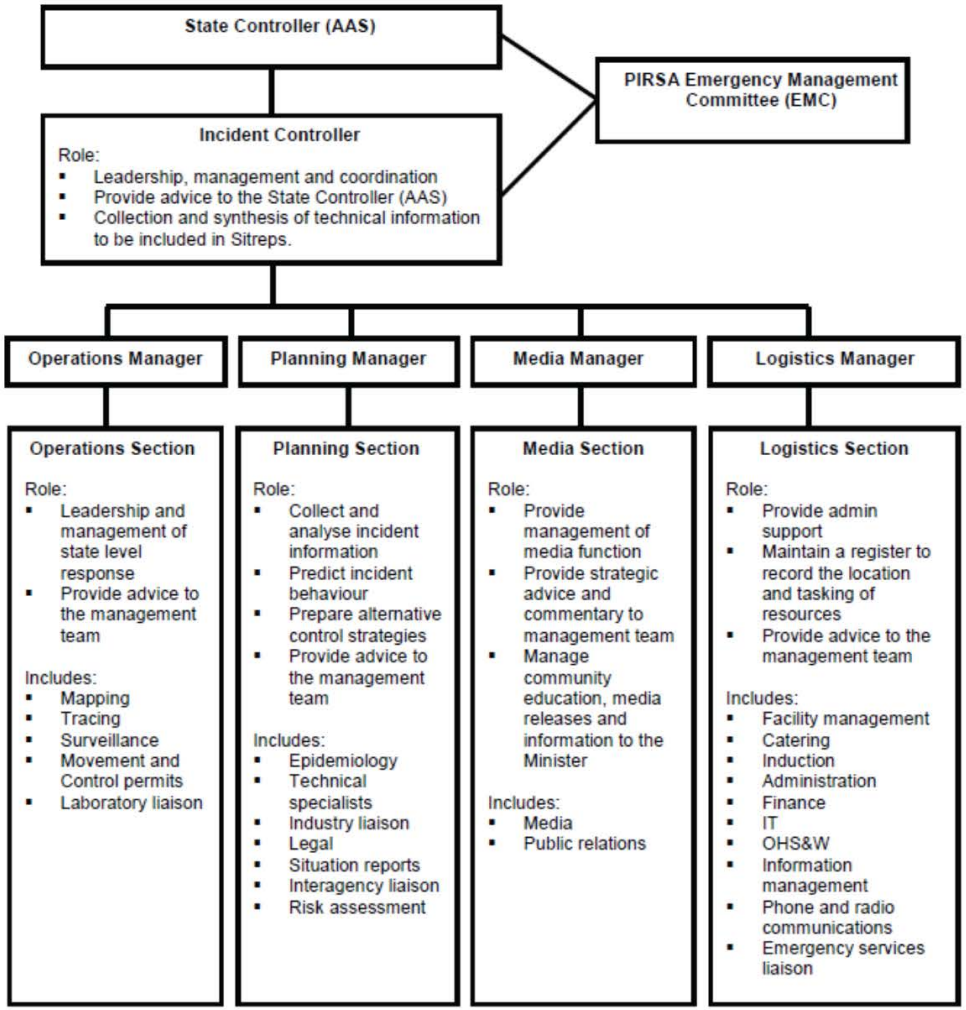

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Aquatic Animal Disease Response: Response

FISHERIES & AQUACULTURE
PIRSA

- **Investigate (confirm disease)**
  PIRSA Fisheries & Aquaculture
- **Full Response: harmonised all sector approach**
  Biosec SA (CVO), PIRSA F&A, State emergency services, industry ….

- **Quarantine**
- **Surveillance & Trace**
- **Valuation**
- **Aqua –** Destruction, Disposal, Decontamination, Restock
  Fisheries – Contain, Control & Zone

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Primary Industries and Regions SA

Aquatic Animal Disease Response: Response

FISHERIES & AQUACULTURE
PIRSA

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Primary Industries and Regions SA

Emergency Responses in SA:

FISHERIES
& AQUACULTURE
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- **Wangary Fires 2005**
- **Equine Influenza 2007**
- **Fruit fly responses 2010**
- **Locust program 2010**
- **Operation Nasser 2011**
- **Avian Paramyxovirus 2011**

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Emergency Preparedness: simulation May 2012

PHANTOM FOX

RRT

AnimalHealth AUSTRALIA

Australian Animal Health Council Ltd ACN 071 890 956

1.2. Aim

The aim of Exercise Phantom Fox is to evaluate the RRT's ability to assist PIRSA to meet its obligations under national and state emergency management arrangements and response plans for managing an EAD response in South Australia.

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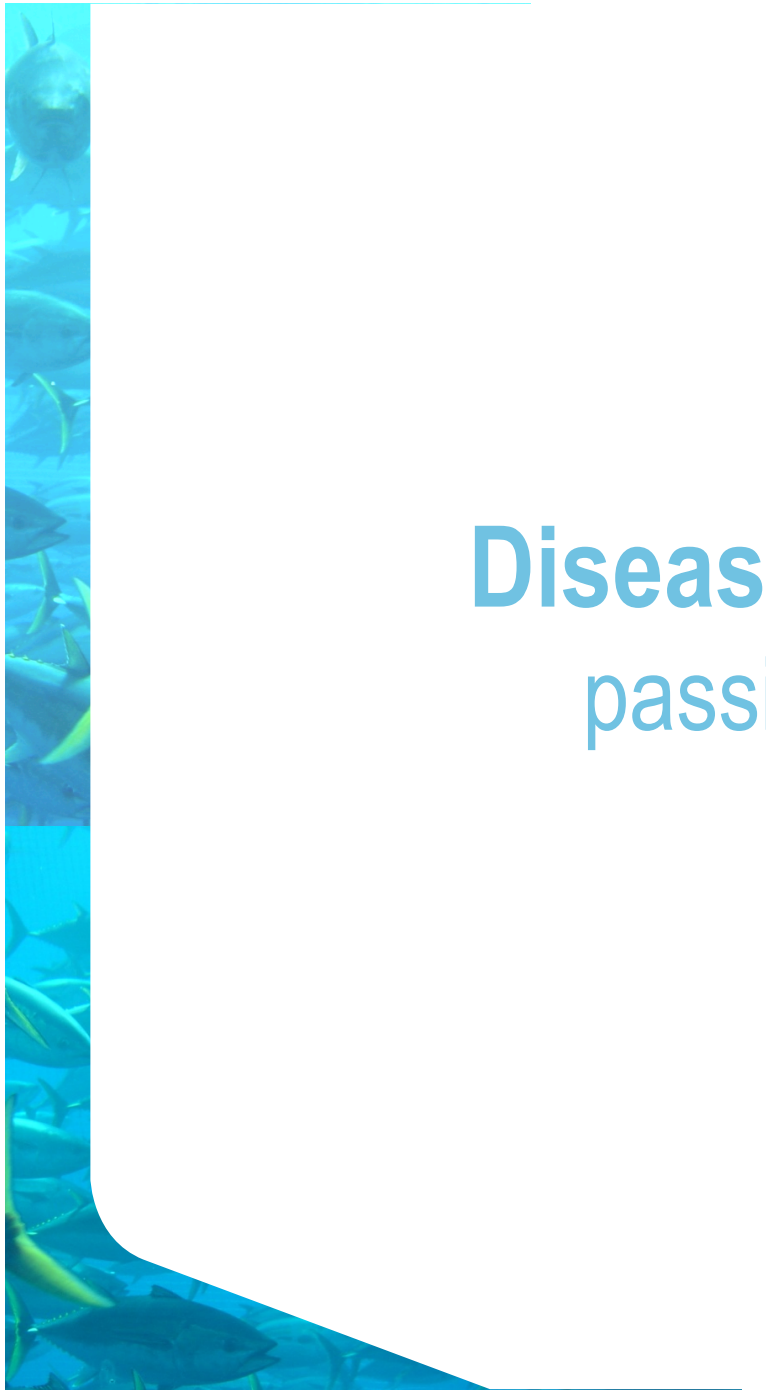

FISHERIES
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Disease Surveillance

passive and active

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Disease Surveillance: AVG

FISHERIES & AQUACULTURE
PIRSA

Passive

- legislative requirements
  - *report unusual mortalities and disease*
  - *maintain stock records*
  - *health checks for PIRSA translocation approvals*
- *routine farm biosecurity & health checks*
- *health checks for interstate translocations / export*

Active

- to determine disease status for policy & zoning

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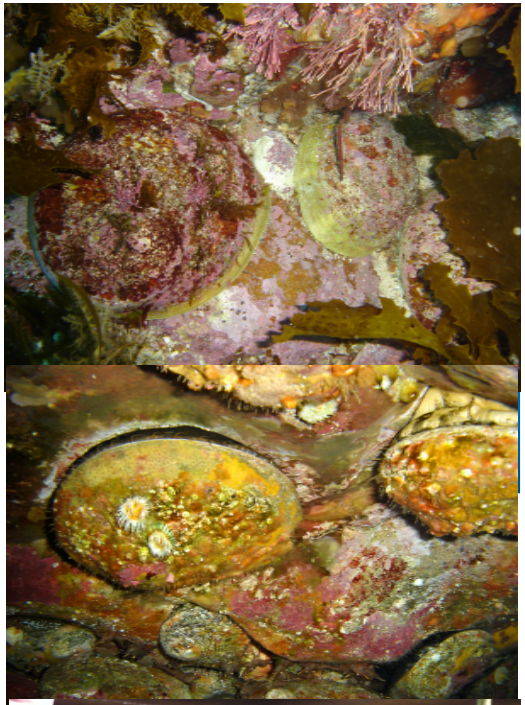
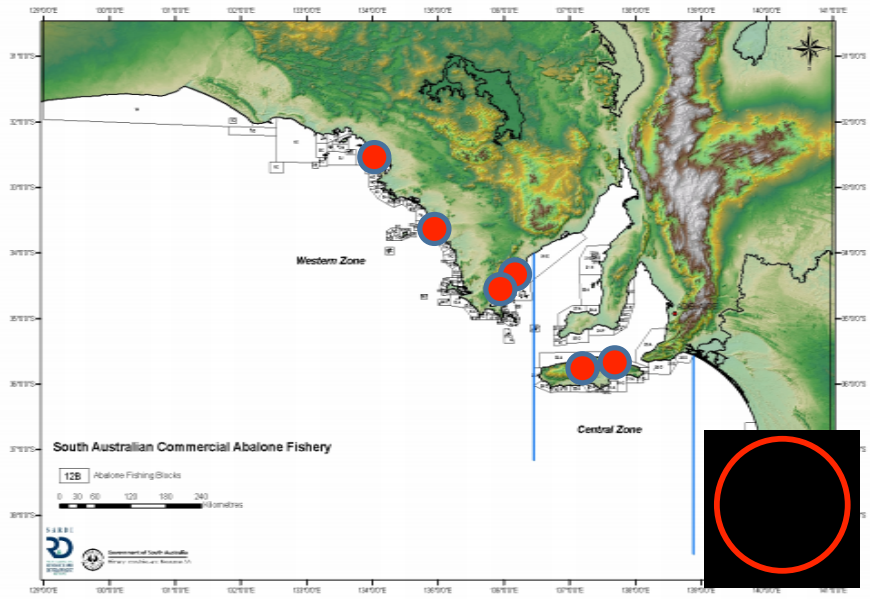
Primary Industries and Regions SA

Abalone Viral Ganglioneuritis (AVG):

- South Australia: 2011 active surveillance
- All aquaculture facilities &
  Southern zone fishery sampled
- PCR: ORF-49, ORF-66 and ORF-77
  AbHV not detected
- 95% confidence that AbHV is <2% prevalent

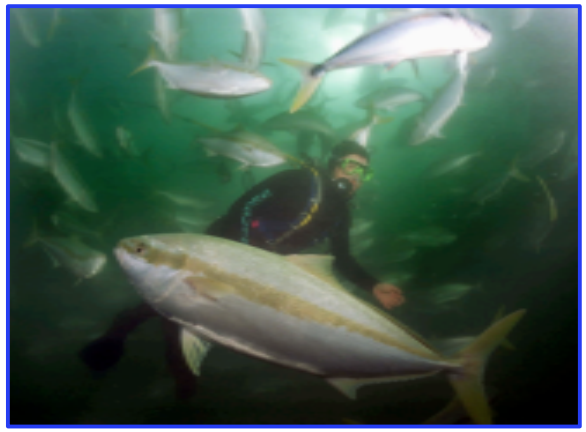


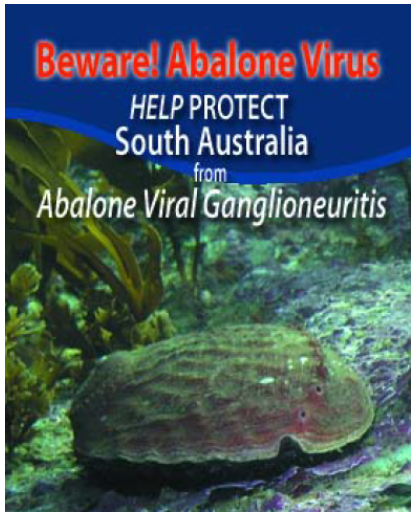


SUMMARY

FISHERIES & AQUACULTURE
PIRSA

- **Surveillance: South Australia relatively free of key viral pathogens**
- **Prevention and preparedness important** (communication)
- **Aquaculture: eradication possible**
  Wild stocks: eradication not always possible, control is costly





Government of South Australia
Primary Industries and Regions SA

SUMMARY

- South Australia relatively free of key pathogens
- Prevention and preparedness important (commu
- Aquaculture: eradication possible
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- **<u>Effective management options</u> –**
  - **Methods and controls to minimise entry of exotic diseases**
    - Good biosecurity, translocation policies, active surveillance, zoning
  - **Respond to new disease introductions before they become well established**
    - Requirement to report mortalities / disease in aquaculture, early detection (passive surveillance), rapid investigation, emergency response

Aquatic Animal Health Plan

This plan has been prepared pursuant to the provisions of AQUAVETPLAN, the *Aquaculture Act 2001*, the *Livestock Act 1997* and the *Fisheries Management Act 2007*.

PIRSA Disease Response Plan:
Abalone viral ganglioneuritis

Government of South Australia
Primary Industries and Regions SA

SUMMARY

FISHERIES & AQUACULTURE
PIRSA

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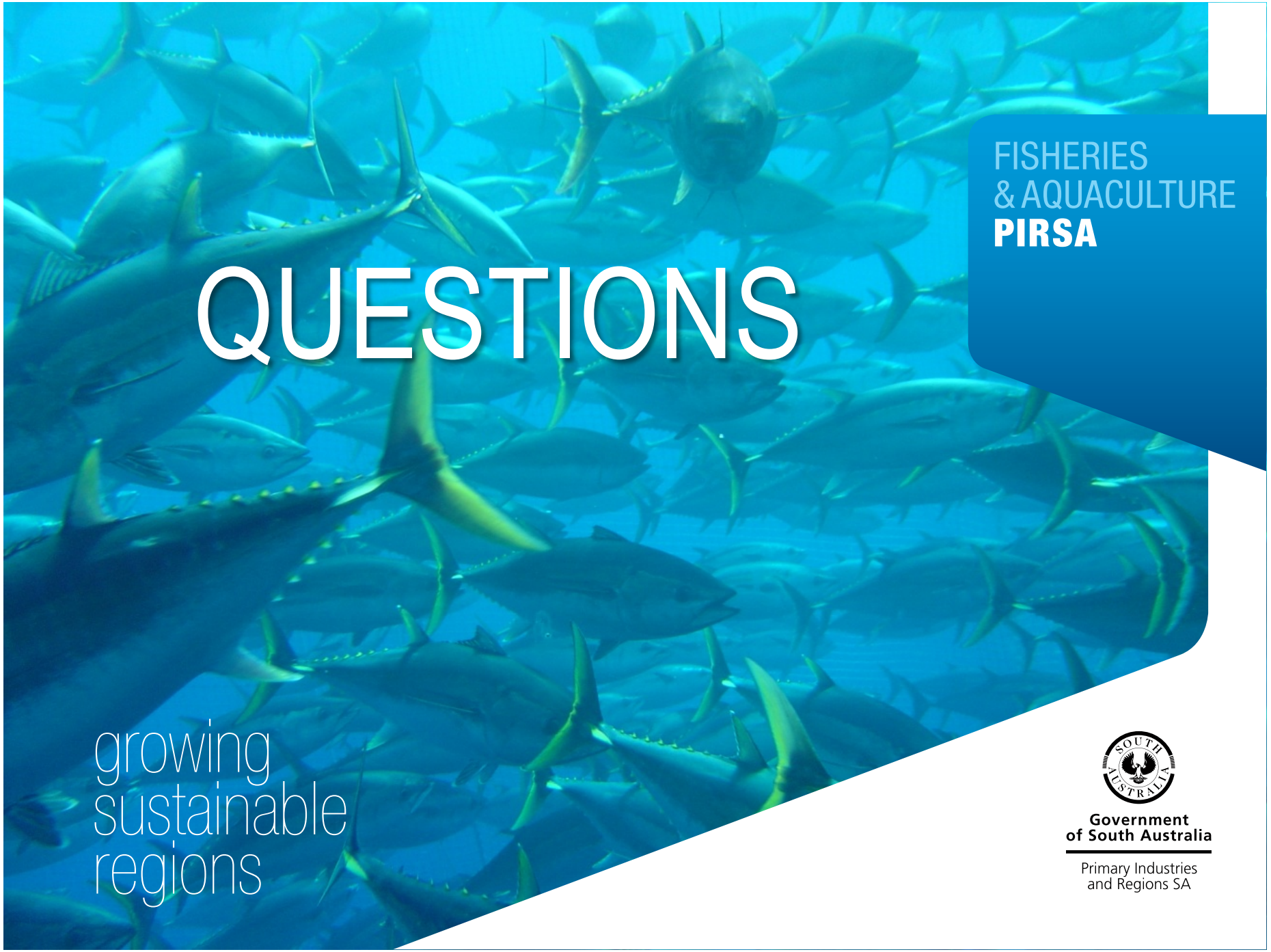
  - **Align national AAH strategies / policies**
    - National AAH committee and working groups
    - Aquatic EADRA

Australian Government
Department of Agriculture, Fisheries and Forestry

Government of South Australia
Primary Industries and Regions SA



QUESTIONS

FISHERIES
& AQUACULTURE
PIRSA

growing
sustainable
regions

Government
of South Australia

Primary Industries
and Regions SA

SUMMARY

FISHERIES & AQUACULTURE
PIRSA

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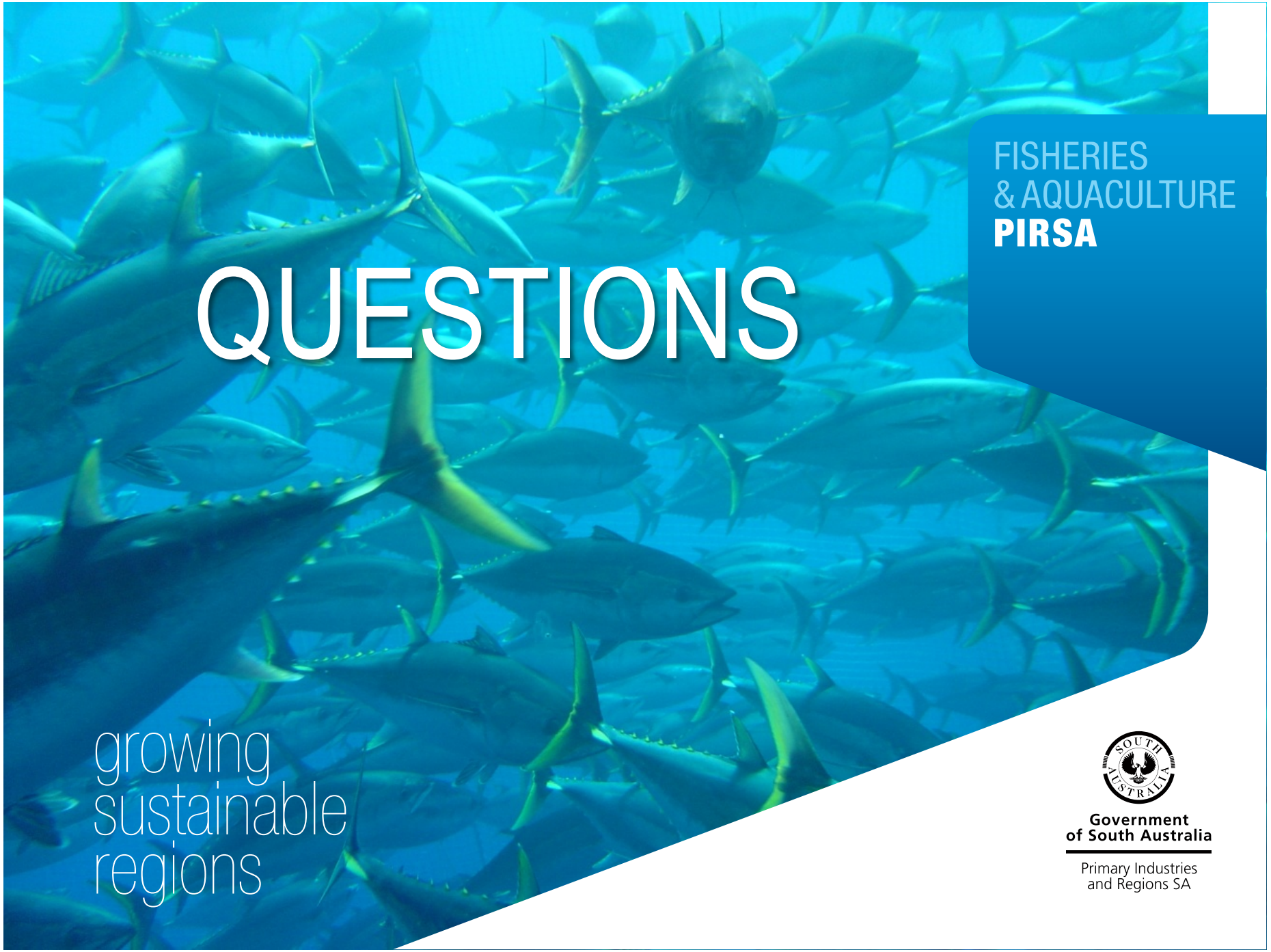
Australian Government
Department of Agriculture, Fisheries and Forestry

Government of South Australia
Primary Industries and Regions SA



QUESTIONS

FISHERIES
& AQUACULTURE
PIRSA

growing
sustainable
regions

Government
of South Australia

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and Regions SA

Western Australia - Emergency Response

Brian Jones

Principal Fish Pathologist

2012

Government of **Western Australia**
Department of **Fisheries**

Fish for the future

Inter-governmental agreements

The Intergovernmental Agreement on Biosecurity (IGAB) and the National Environmental Biosecurity Response Agreement (NEBRA) came out of the Beale review 2008 "*One biosecurity: a working partnership*".

All States and Territories have signed up to the IGAB and the NEBRA.

Requirements of NEBRA for DoFWA

- Risk based approach
- Reporting within 24 hours of becoming aware (Part V, section 6.3)
- Establishes process for a national biosecurity response (Part V, section 6)
- Sets out cost sharing arrangements, formula and obligations (Part V, section 7 and Schedule 5)
- Establishes national significance criteria (Schedule 3)

Roles under NEBRA

The states and territories bear primary responsibility for the emergency management of outbreaks, including preparedness and emergency responses within their borders.

The Commonwealth assists the states and territories by:

- providing leadership in national biosecurity policy determination
- providing a national coordinating role
- supporting emergency responses to outbreaks through cost-sharing if they are of national significance and the other requirements in this agreement are met.

State Legislation

Fish Resources Management Act 2004,

258(k) gives powers specifically to —

(i) prescribe measures for the prevention or control of disease in fish or pearl oysters;

(ii) require persons in specified circumstances to notify the CEO of the occurrence of any disease, or symptoms of disease, in fish or pearl oysters;

(iii) prohibit or regulate the possession of fish or pearl oysters that may be affected by disease;

(iv) require the destruction of fish affected by disease and any receptacle or container containing such fish or pearl oysters;

(v) provide for the recovery of the cost of any measure for the prevention or control of disease in fish or pearl oysters;

State legislation – ctd.

92A an application for an aquaculture licence must be accompanied by a management and environmental monitoring plan (MEMP) identifying how the applicant will manage any risks to the environment and public safety in relation to the proposed activity for which the licence is sought.

These include biosecurity and disease control and allow for 3rd party audit

State Legislation (2)

Exotic Diseases of Animals Act 1993

The Minister of Agriculture and Food can declare any disease of animals or plants to be covered by the Act.

This Act has wide-ranging powers include movement restrictions and declaration of infected premises. It does identify “land” to include a fishery or body of water (within or forming part of a boundary of any land).

No injunction can be taken to stop actions carried out under this legislation

Department Management

The Department follows the protocols and procedures of the Australian Inter-Service Incident Management System (AIIMS)

The EADRA requires personnel to be trained and accredited pursuant to the National Emergency Animal Disease Training Program to access cost sharing agreements.

However, this does not apply to an aquatic animal disease response (no EADRA).

Current Industry Enterprise Level Biosecurity

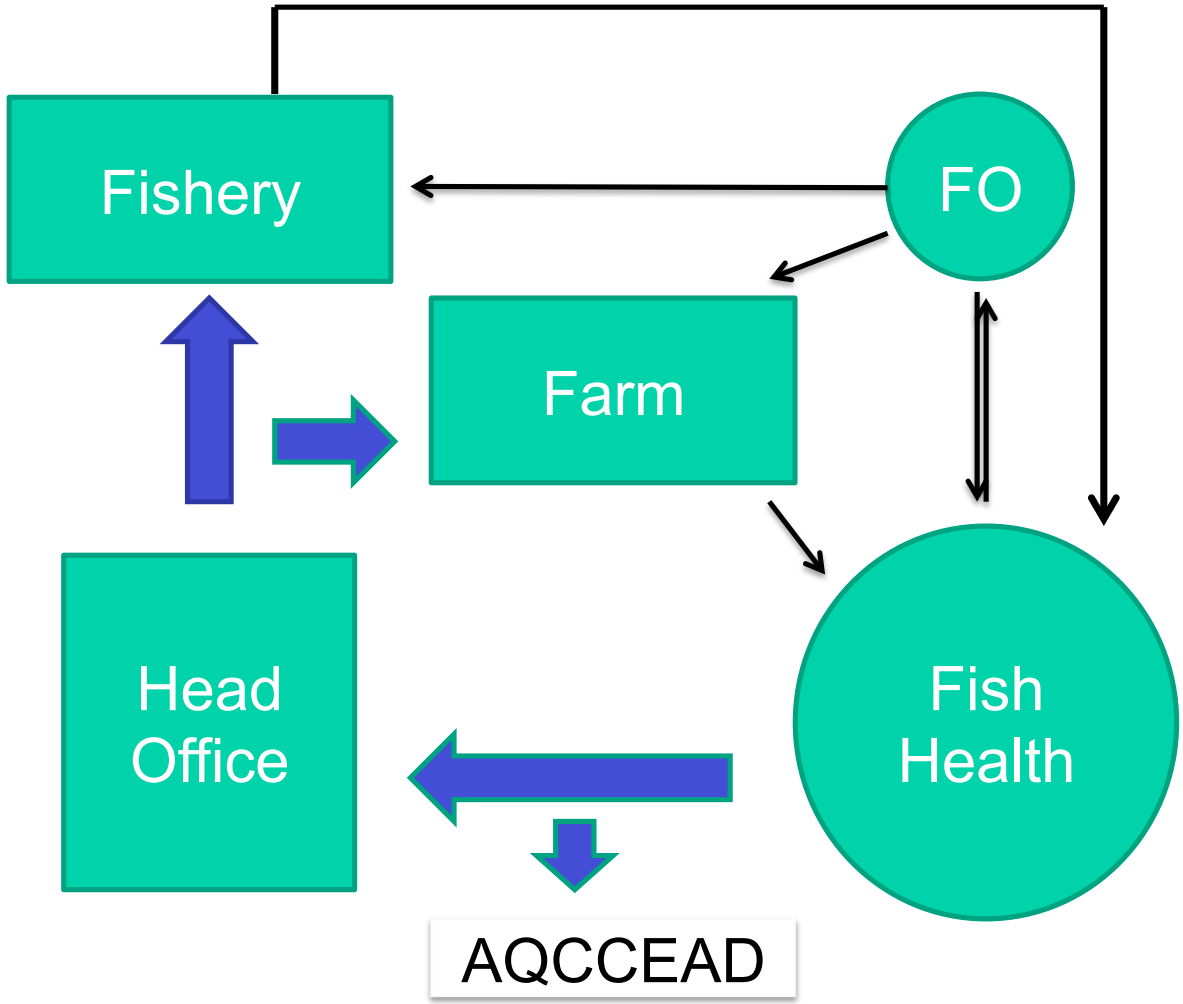
Enterprise required to have MEMP, which will require notification on suspicion of disease.

Liaison usually through Fish Pathologist in first instance.

Powers exist to compulsorily cut off water supply and to destock

There is no compensation

Disease response



State Preparedness and Response

If required an Emergency Response will be mounted by the Department with industry involvement.

Fish Health provide advice and diagnostic expertise

Aquatic CCEAD may be informed.

Surveillance & Monitoring: Disease diagnostic service

- Diagnostic service
- Testing and health certification
  - From hatchery
  - Before translocation
  - Exports (with BA)
- Surveillance
  - Fish Kill Investigation - Incl. training

    28 kits distributed, 500 officers trained since 1997

NATA Accredited Laboratory

Abalone emergency disease response awareness workshop – NSW (21&22 May)

Legislation

Fisheries Management Act 1994, Division 4, s. 181-187

- provision for declaration of 'declared diseases'
- Declared diseases listed in Schedule 6B of the FM Act
- quarantine areas may be declared upon presence or suspected presence of disease
- sale of diseased (whether suspected or known infection) prohibited
- can require destruction of suspected/infected fish

Fisheries Management (Aquaculture) Regulation 2007

- requirement to report suspected to be infected with a declared disease, where individuals (aquaculture producers, businesses other knowledgeable persons) are required to notify a fisheries officer in the event of a known or suspected declared disease.

Animal Diseases (Emergency Outbreaks) Act

- powers to restrict importation into the state any animal that is suspected of presenting a risk with regard to translocation of a disease declared under this Act.

All NSW aquaculture permits include a condition that suspected disease must be notified to the Department within 48hrs.

Current industry enterprise level biosecurity

N/A. There is no current aquaculture of abalone in NSW.

Relevant biosecurity

- current prohibition on use of viscera (abalone gut) as bait.
- Current S.8 Fishing Closure in place with restrictions to prevent the potential spread of perkinsus.

Surveillance

NSW state surveillance for most aquatic disease is passive.

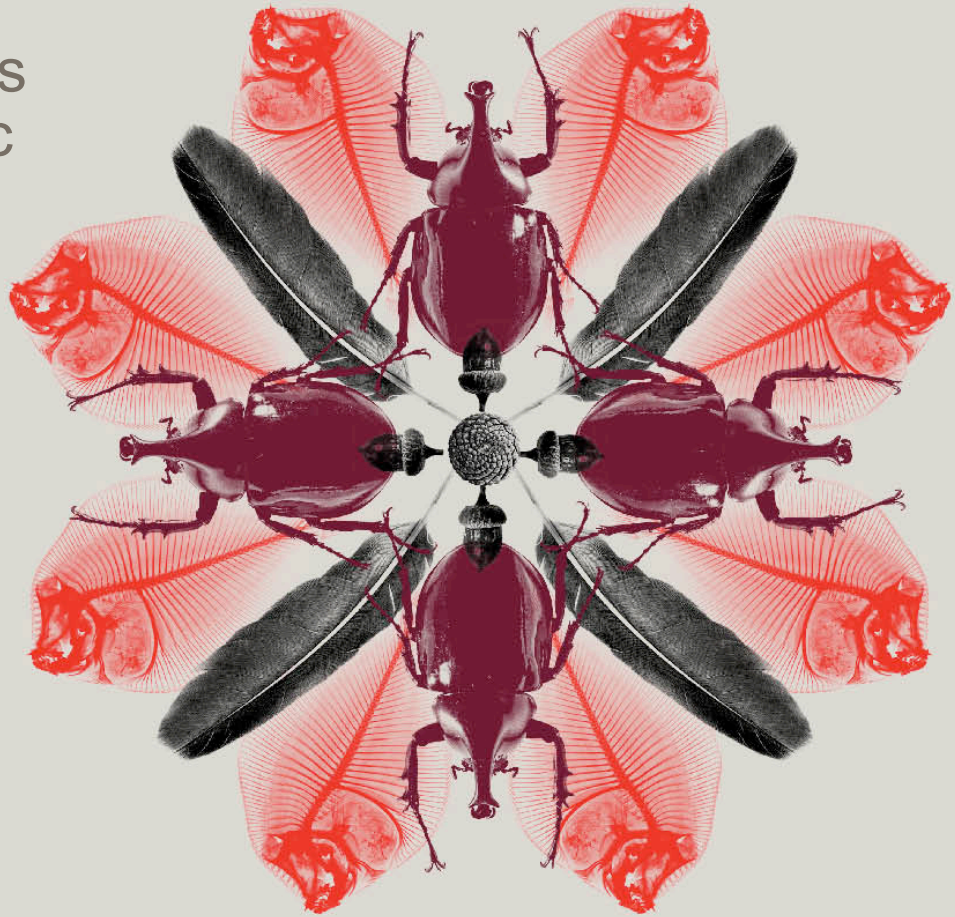
Emergency response

- Investigations of suspected disease
- Reporting of suspected disease is a requirement
- Biosecurity NSW will coordinate investigation into suspected declared disease, and laboratory testing is completed at the Department's diagnostic laboratory at Elizabeth McArthur Agricultural Institute
- Application of NEBRA and EADRA where appropriate
- engage Consultative Committee on Emergency Aquatic Animal Disease (Aquatic CCEAD) if required
- NSW Incident Management Team (Emergency Management capability)

Australian Government

Department of Agriculture, Fisheries and Forestry
Biosecurity

National arrangements for emergency aquatic animal disease preparedness and response



Brett Herbert/ Aquatic Animal Health

21 May 2012

Overview

1. Current arrangements for managing aquatic animal disease emergencies

2. What happens in an aquatic animal disease emergency – and limitations of the current system

3. Possibilities for improvement

4. Benefits of a formal agreement

What is an “emergency”?

- diseases that could have significant impact - economic (production or trade), environmental or human health
- desirable to eradicate OR contain with a view to eradication
- if eradication not feasible move from “emergency response” to ongoing management and mitigation

1. Current arrangements for aquatic animal disease emergencies

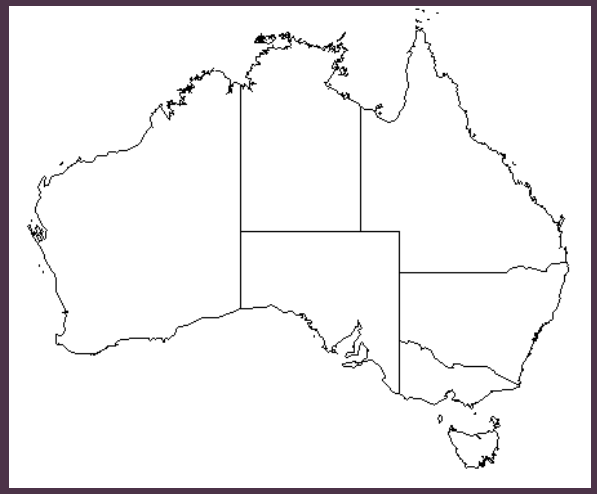
2. What happens in an aquatic animal disease emergency
   – and limitations of the current system

3. Possibilities for improvement

4. Benefits of a formal agreement

Cooperative approach recognising federal and state government responsibilities

- Australian Government
  - National coordination
  - Quarantine
  - International engagement (e.g. trade and disease reporting)
- State and territory governments
  - Within border disease control
  - Physical capabilities for diagnosis and response
- Aquaculture and fisheries sectors
  - Enterprise-level health management and biosecurity



Arrangements in place for:

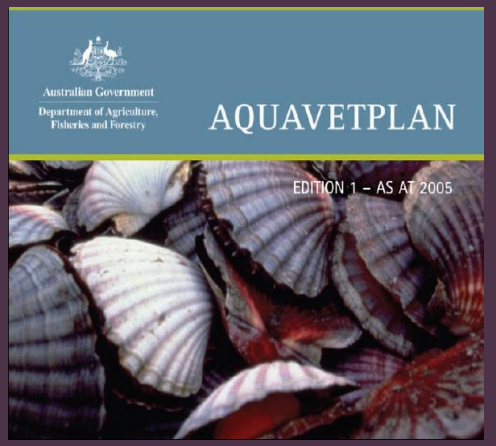
1. Planning (AQUAVETPLAN)
2. Decision making (AqCCEAD)
3. Diagnostic capability
4. Training

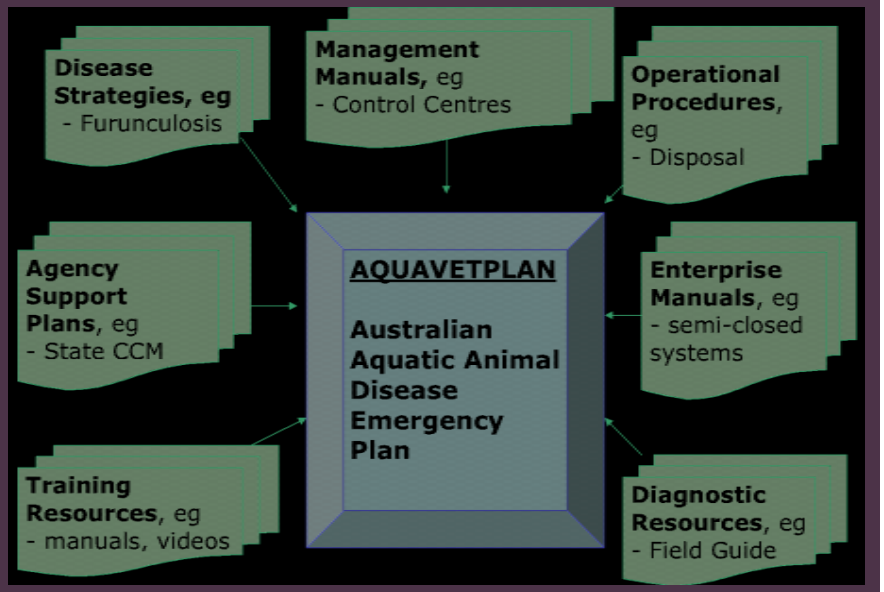
1. Planning - AQUAVETPLAN

AQUAVETPLAN – Australia's Aquatic Veterinary Emergency Plan

– series of technical manuals outlining preferred response approach

– developed during "peace time" and agreed by governments and "affected" industries





2. Decision making and advice - AqCCEAD

- AqCCEAD - Aquatic Consultative Committee on Emergency Animal Disease
  - – co-ordinates technical response to aquatic animal disease emergencies
  - – considers international obligations (e.g. reporting, trade)
  - – members include the Chief Veterinary Officers (or fisheries directors) plus AQIS and Biosecurity Australia
  - – convened by Australian Chief Veterinary Officers on request by combat state

3. Diagnostic capability

- **Awareness resources**
  - – improve recognition of important diseases
- **Standard diagnostic procedures**
  - – facilitate consistency between testing laboratories
- **Proficiency testing**
  - – allow laboratories to test capability for detecting emergency diseases

4. Training

Emergency disease simulation exercises

– test arrangements e.g. communication, organisation, decision making, and operational procedures

– enhance skills

Training of individuals

– currently national scholarship program (Aquatic Animal Health Training Scheme) for aquatic animal health professionals

–- Aquatic Animal Health Technical Forum and Skills Training

– some terrestrial animal training programs are relevant

1. Current arrangements for aquatic animal disease emergencies

2. What happens in an aquatic animal disease emergency and limitations of the current system

3. Possibilities for improvement

4. Benefits of a formal agreement

1. Detection

- Signs of disease detected (e.g. vet, farm worker, fisher, public)
  - important for early and effective response
  - if not considered significant or not noticed – not reported
  - if considered significant – may be reported to responsible authority

  - **Limitations**:
  - staff may not be trained to recognise diseases
  - adequate surveillance and monitoring systems may not be in place
  - reluctance to report – fear of stock destruction, movement restrictions or other business impacts

2. Investigation

- By responsible authority (in state or territory)
  - initial investigation may include diagnosis, quarantine, tracing, surveillance
  - will follow relevant state legislation

  - **Limitations**:
  - no obligation to maintain certain capabilities (e.g. diagnosis, field officers)

2. Investigation

- AqCCEAD may be convened on suspicion of a “significant” disease.

AqCCEAD:

- will determine international reporting issues and potential trade implications
- will determine if eradication is feasible and cost-effective
- is guided by AQUAVETPLAN

- **Limitations:**
- There is no legal requirement for the combat state to:
  - request that AqCCEAD be convened
  - follow AqCCEAD advice
  - develop a response plan for approval by AqCCEAD

3. Response

State governments have operational capacity

- authority to respond under their livestock or fisheries acts
- may consult through AqCCEAD

Limitations:

- no obligation to follow AqCCEAD advice
- response may be costly and disproportionate to value for that state – incentive to act in common interest?
- combat state may be reluctant to order closures / destruction if compensation mechanism not available

4. Recovery

Resumption of business

- restocking or reopening of farms
- resumption of trade
- surveillance activities

Limitations:

- no arrangements to share costs of destroyed stock
- business impacts could limit ability to recommence operations
- no requirement for minimum biosecurity standards to limit reoccurrence

1. Current arrangements for aquatic animal disease emergencies

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The current system

Strengths

- significant arrangements in place (AQUAVETPLAN, AqCCEAD)
- proven to work (parallel to terrestrial system)
- cooperative culture exists

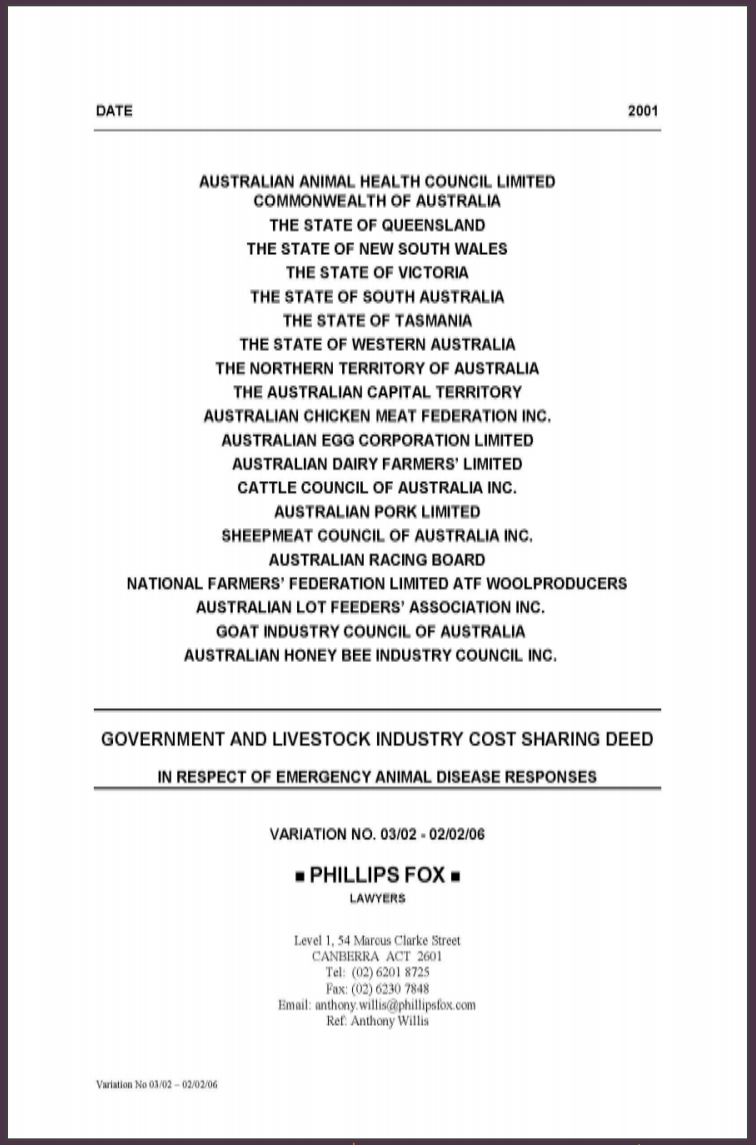
Possible improvements

- increase cooperation (industry and govt)
- manage risks nationally and in the common interest e.g. agreed minimum biosecurity standards
- maintain capabilities e.g. for detection and response
- share costs - to improve certainty and willingness to act
- ensure people are trained for emergencies

The terrestrial example

- Formal agreement between industries and government ("Government and livestock industry cost-sharing deed")

- Aims to address:
  - Increased cooperation
  - Risk management
  - Detection and response
  - Cost sharing
  - Training



DATE 2001

AUSTRALIAN ANIMAL HEALTH COUNCIL LIMITED
COMMONWEALTH OF AUSTRALIA
THE STATE OF QUEENSLAND
THE STATE OF NEW SOUTH WALES
THE STATE OF VICTORIA
THE STATE OF SOUTH AUSTRALIA
THE STATE OF TASMANIA
THE STATE OF WESTERN AUSTRALIA
THE NORTHERN TERRITORY OF AUSTRALIA
THE AUSTRALIAN CAPITAL TERRITORY
AUSTRALIAN CHICKEN MEAT FEDERATION INC.
AUSTRALIAN EGG CORPORATION LIMITED
AUSTRALIAN DAIRY FARMERS' LIMITED
CATTLE COUNCIL OF AUSTRALIA INC.
AUSTRALIAN PORK LIMITED
SHEEPMEAT COUNCIL OF AUSTRALIA INC.
AUSTRALIAN RACING BOARD
NATIONAL FARMERS' FEDERATION LIMITED ATF WOOLPRODUCERS
AUSTRALIAN LOT FEEDERS' ASSOCIATION INC.
GOAT INDUSTRY COUNCIL OF AUSTRALIA
AUSTRALIAN HONEY BEE INDUSTRY COUNCIL INC.

GOVERNMENT AND LIVESTOCK INDUSTRY COST SHARING DEED

IN RESPECT OF EMERGENCY ANIMAL DISEASE RESPONSES

VARIATION NO. 03/02 - 02/02/06

■ PHILLIPS FOX ■
LAWYERS

Level 1, 54 Marcus Clarke Street
CANBERRA ACT 2601
Tel: (02) 6201 8725
Fax: (02) 6230 7848
Email: anthony.willis@phillipsfox.com
Ref: Anthony Willis

Variation No 03/02 – 02/02/06

Beale review of Quarantine and Biosecurity 2008

Recommendation 25

All animal, plant and aquatic industries should commit to sharing the responsibility and costs of pest and disease response actions, with those who are not signatories to the relevant cost sharing agreement meeting their share of a response, possibly by way of levy to recover costs

1. Current arrangements for aquatic animal disease emergencies

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Benefits of a formal agreement

- common disease risks across sectors could be addressed (e.g. aquaculture, commercial fisheries, recreational fisheries)
  - common benefits of effective management
- cost sharing approach of terrestrial agreement not attractive
- desirable elements of aquatic arrangements have been identified by the WG

Benefits of a formal agreement

- Protecting businesses by lifting biosecurity standards nationally
  - e.g. agreed minimum biosecurity standards
  - risk mitigation

- Any outbreaks dealt with promptly
  - e.g. surveillance, remove disincentives to report

Benefits of a formal agreement

- Any outbreaks dealt with effectively
  - e.g. capacity, national rather than local focus, willingness to act, co-operation and resource sharing
- A seat at the table at AqCCEAD for industry-better communication and understanding of issues
- Compensation for eligible costs associated with response

The OIE Standards

- The OIE develops normative (standard) documents relating to rules that Member Countries and Territories can use to protect themselves from diseases without setting up unjustified sanitary barriers.

- For aquatic animal disease, the standards are the *Aquatic Animal Health Code* and the *Manual of Diagnostic Tests for Aquatic Animals.*

The OIE Standards cont'd

- The *Aquatic Code* and *Aquatic Manual* have a major role to play not only in the prevention and control of aquatic animal diseases, but also more generally in the improvement of aquatic animal health worldwide.

- The OIE does its best to ensure the provisions of those standards are science-based and globally applicable.

The OIE *Aquatic Code*

Disease diagnosis, surveillance and notification

Risk Analysis

Quality of Aquatic Animal health Services

General Recommendations: Disease prevention and control

Trade measures, importation/exportation procedures and health certification

Veterinary Public Health

Listed diseases-amphibians, molluscs, fish, crustaceans

Australia's Rules

Based on OIE standards
Australia allows import of dead molluscs only
These include chilled or frozen product

The standards work two ways-they permit export of our products to other countries


Further information:
brett.herbert@daff.gov.au

Development of a formal industry-government emergency animal disease response agreement

May 2012

Department of
Fisheries

Background

For at least 15 years there have been discussions on a “cost sharing” agreement with “industry” over “user pays” for an emergency aquatic animal disease response.

The former AAHC established a working group in 2008 to determine how a response agreement could be progressed.

2008-2010

- An industry-government agreement was preferred;
- A sample EAADRA was prepared;
- Outstanding issues were identified:
  - Nature of “industry”
  - New and emerging diseases
  - Cost sharing table
    - “public good” issues
    - Funding formulae
  - Regional based industries

Way forward 2010-12

- PISC - strong preference for all primary industries capable of being covered under existing EADRA to sign up.
- Rejected by aquatic industries in 2005
- The consultants report on reviewing the EADRA in 2007 noted that a separate agreement for aquatic industries would be preferable.
- NBC have been asked to endorse a new workplan

Workplan in a nutshell-

1. Agree on policy approach
2. Costs of administering agreement
3. Ownership issues
4. National Animal Health performance standards
5. EAD training programs
6. Cost sharing mechanisms
7. What diseases?
8. Biosecurity plans
9. Develop draft agreement