



Sub-committee on Aquatic Animal Health

SCAAH Newsletter #5 June 2015

Welcome

Welcome to the fifth edition of the Sub-committee on Aquatic Animal Health (SCAAH) newsletter. This newsletter provides an update on SCAAH activities relevant to industry bodies, aquatic animal health professionals and other parties interested in aquatic animal health.

SCAAH provides policy, scientific, technical and strategic advice to the Animal Health Committee (AHC) on aquatic animal health issues relating to capture fisheries, recreational fishing, aquaculture and the ornamental fish industry.

SCAAH members represent Commonwealth, state, Northern Territory and New Zealand governments, the CSIRO Australian Animal Health Laboratory (AAHL), universities and the National Aquatic Animal Health Industry Reference Group (NAAHIRG). The current Chair of SCAAH is the Victorian Chief Veterinary Officer, Professor Charles Milne. SCAAH also welcomes its new Executive Officer (EO), Melanie Allan (right). Melanie will support SCAAH from her position within the Department of Agriculture's Aquatic Pest and Health Policy team, and brings a wealth of experience having recently worked on Exercise Odysseus (a simulation exercise for a national livestock standstill in the event of an outbreak of foot-and-mouth disease in Australia) and as the former Sub-Committee on Animal Health Laboratory Standards (SCAHLs) EO. Welcome Melanie!



SCAAH holds one face-to-face meeting and three teleconferences per year. Groups of SCAAH members also meet throughout the year to work on specific issues. The 2015 face-to-face meeting was held on 11-12 March at the Ministry for Primary Industries Investigation and Diagnostic Centre at the National Centre for Biosecurity and Infectious Disease campus at Wallaceville, New Zealand.

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AQUAPLAN 2014–2019

AQUAPLAN 2014–2019 is Australia’s third national strategic plan for aquatic animal health. The plan outlines agreed aquatic animal industry and government priorities for enhancing Australia’s management of aquatic animal health. SCAAH and NAAHIRG oversee implementation of AQUAPLAN 2014–2019 and lead several activities under the plan.

AQUAPLAN 2014-2019 has 5 objectives:

1. Improving regional and enterprise-level biosecurity
2. Strengthening emergency disease preparedness and response capability
3. Enhancing surveillance and diagnostic services
4. Improving availability of appropriate veterinary medicines
5. Improving education, training and awareness

Each AQUAPLAN 2014-2019 objective is supported by activities that address specific aquatic animal health management issues. The majority of AQUAPLAN’s 24 activities are well underway and a brief update on the status of each (current at July 2015) is provided below. The first number of each activity corresponds to the objective that it supports (e.g. Activity 4.1 supports Objective 4).



Activities complete – 3

- **Activity 1.3. Develop a model aquaculture enterprise health accreditation scheme using abalone aquaculture as an example** – A model aquaculture enterprise health accreditation scheme has been developed by SCAAH in consultation with the Australian Abalone Growers Association and



Photo: Department of Agriculture

Aquaculture Committee. Both the aquaculture and wild capture sectors were engaged during its development and the final AHC-endorsed scheme has been provided to the aquaculture and wild fishery sectors through the National Aquaculture Council (NAC) and the Abalone Council of Australia. Implementation of the program with industry is now occurring at a jurisdictional level, including development of biosecurity plans.

- **Activity 4.1. Consider aquatic animal production issues to inform development of the national antimicrobial resistance strategy** – SCAAH members provided input on aquatic animal production issues to inform the National Antimicrobial Resistance Strategy 2015–2019. The strategy is now available on the Department of Agriculture website at agriculture.gov.au/animal/health/amr.
- **Activity 5.5. Develop an AQUAPLAN 2014–2019 Communication Strategy** – The AQUAPLAN 2014–2019 *Communication Strategy* has been endorsed by AHC and will be updated annually by SCAAH to ensure AQUAPLAN activity outcomes continue to be communicated in the most appropriate and effective way.

Activities in progress – 19

- **Activity 1.1. Develop sector-specific biosecurity plan templates and guidance documents** – A generic biosecurity plan template has been developed and SCAAH members are currently “road testing” the document with selected aquaculture producers that have an interest in biosecurity.



This process is intended to test the practicality and ease of use of the document before it is finalised and presented to industry and government for endorsement.

- **Activity 2.1. Implement an agreed work plan to develop industry–government emergency aquatic animal disease response arrangements** – A dedicated project manager funded by the Department of Agriculture and employed by Animal Health Australia is coordinating implementation of the work plan. The first year of the work plan is well underway and current activities include; considering the implications of fisheries resource ownership for the development of an industry-government agreement, and a project to develop principles for determining the balance of public and private benefits arising from responses to emergency aquatic animal diseases.
- **Activity 2.2. Develop a program of national and sector-specific emergency aquatic animal disease response exercises, including field and operational activities** – SCAAH commenced development of the program of disease response exercises at its workshop held on 11-12 March 2015. The program of activities will be coordinated across jurisdictions and different industry sectors. It will include complementary activities to test important capabilities in Australia’s systems for responding to emergency aquatic animal diseases.
- **Activity 2.3. Strengthen national first-response capability to ensure inclusion of specific aquatic animal disease expertise** – Australia’s national first response capability is important to ensure a sufficient number of trained personnel can be rapidly deployed in response to a disease outbreak. The National Biosecurity Committee has endorsed a cross sectoral approach to the management and deployment of the National Rapid Response Team that would cover plants, terrestrial animals, aquatic animals and marine pests. Consideration is currently being given to how this will be implemented.
- **Activity 3.1. Identify possible improvements to increase the sensitivity of Australia’s passive surveillance systems for aquatic animal diseases** – SCAAH members initiated this project at their March 2015 meeting. A project team will initially define existing components of Australia’s passive surveillance systems and identify any weaknesses. This activity aims to improve confidence in Australia’s ability to detect significant emerging and exotic diseases and to substantiate Australia’s disease status.
- **Activity 3.2. Make the ‘Aquatic animal diseases significant to Australia: Identification Field Guide’ available as an application for mobile devices** – The Department of Agriculture will determine the appropriate structure and functionality of a mobile device application to increase accessibility of the field guide which was last published online in 2012. The [field guide](#) will be updated where necessary to align with current scientific information.
- **Activity 3.3. Undertake aquatic animal health benchmarking for specific aquaculture industry sectors** – SCAAH discussed steps to undertake aquatic animal health benchmarking activities at their March 2015 meeting. The aim of benchmarking is for individual farms to have a mechanism for comparing health-relevant production parameters with other producers. This would allow producers to assess their performance against peers and identify areas for improvement. A scoping paper is being prepared to identify the benefits, possible approaches



and outcomes of benchmarking. SCAAH will consult with industry sectors to determine interest in participating in this activity.

- **Activity 3.4. Adopt processes (new or existing) for formal recognition of validation status of diagnostic tests and identify specific test validation priorities** – SCAAH members and laboratory specialists have considered approaches to investigating the effect of sample pooling on diagnostic test sensitivity for priority aquatic animal diseases (OsHV-1 microvariant, *Megalocytivirus* and yellowhead virus or white spot syndrome). This activity aims to increase understanding of the validation status of diagnostic tests and their fitness for specific purposes.
- **Activity 3.5. Develop stable positive control material and internal controls for molecular tests for detection of important endemic and exotic pathogens** – CSIRO AAHL and Fisheries Western



Photo: Petuna Aquaculture

Australia are progressing this activity through a Fisheries Research and Development Corporation (FRDC) funded project (2014/002) initiated under the Aquatic Animal Health Subprogram. The first milestone for the project has been completed – controls have been prepared for 21 assays and a preliminary evaluation of internal positive controls is complete.

- **Activity 3.6. Develop validated diagnostic tests for significant new and emerging diseases of aquatic animals in Australia** – Australia's network of aquatic animal disease diagnostic laboratories are leading this activity. Research projects directed at the development of validated diagnostic tests have commenced across the diagnostic laboratory network (see *Activities 3.4 and 3.5*).
- **Activity 3.7. Improve the breadth of data in Neptune, particularly histopathology slide collections** – The Department of Agriculture has allocated funding to increase the histopathology slide collection of Neptune by approximately 1000 slides from the current collection of 180 slides. Arrangements for the ongoing hosting of the Neptune database are currently being considered.
- **Activity 3.8. Describe existing components of Australia's aquatic animal disease diagnosis network to identify interactions, responsibilities and performance measures** – SCAAH is reviewing specific components of the network to identify interactions, responsibilities and performance measures. The Australian Aquatic Animal Diagnostic Laboratories Database is currently being updated.
- **Activity 4.2. Run an industry–government workshop to identify ways to improve access to veterinary medicines and chemicals, including low-risk chemicals** – NAC in consultation with SCAAH and the Australian Pesticides and Veterinary Medicines Authority (APVMA) is working to identify ways to improve access to veterinary medicines and chemicals. NAC has represented aquaculture industries at several meetings and workshops to progress the Australian Government's \$8 million commitment to help farmers gain improved access to safe and effective AgVet chemicals. To date, NAC has contributed to; discussions on administrative and legislative reforms, the AgVet Collaborative Forum, and helping to prioritise aquavet product needs for grant funding under the commitment.
- **Activity 4.3. Develop arrangements to improve industry coordination of minor use permit applications to the APVMA** – Arrangements are being developed by NAC, in consultation with

SCAAH and the APVMA, to improve industry coordination of applications for minor use permits (MUPs). NAC is working with manufacturers to progress MUPs for priority veterinary medicines.

- **Activity 4.4. Strategically consider long-term regulatory conditions to address market failure for aquatic veterinary medicines** – Long-term regulatory conditions to address market failure for aquatic veterinary medicines are being considered by NAC, in consultation with SCAAH, AHC and the APVMA. Improved approvals processes (for registration of aquatic veterinary medicines and chemicals) will support more efficient access and ensure safe and appropriate use in the least restrictive manner. NAC, the Department of Agriculture, APVMA, several research and development corporations, and industry are currently working together with the aim to; establish a framework to address barriers to AgVet chemical access, establish a forum for stakeholders to share priorities for AgVet chemical use needs, and to develop tools or generate the required data to gain access to the most critically required AgVet chemicals.
- **Activity 4.5. Develop guidance documentation to improve industry understanding of regulations and risks of inappropriate veterinary medicine and chemical use** – SCAAH members are working with NAC and the APVMA on this activity. SCAAH members are preparing a pamphlet on good practice and responsible AgVet chemical use for industry.
- **Activity 5.1. Review the Aquatic Animal Health Training Scheme (2013–14)** – The Department of Agriculture is leading a review of the Aquatic Animal Health Training Scheme for the years 2013–14. The training scheme—jointly funded by the FRDC and the Department of Agriculture—commenced in 2010 and following a review was renewed for two years in 2013. The aim of the training scheme was to improve knowledge and skills in aquatic animal health management to support Australia’s fishing and aquaculture industry, including the aquarium sector. \$120,000 was allocated to the scheme during 2013–14 and funding was made available on a competitive basis to support individuals to undertake short, focused training activities within Australia or overseas.
- **Activity 5.2. Assess requirements for a national aquatic animal health curriculum that can be adapted for end-users ranging from vocational training to higher education** – The requirements for a national aquatic animal health curriculum are being assessed through two training and capacity building projects funded through the FRDC (Project 2013/414 – ‘Review of vocational education courses on aquatic animal health available to fisheries and aquaculture sectors in Australia’ and Project 2014/403 – ‘Development of a national aquatic animal health curriculum for delivery by tertiary institutions’). Once the final reports for the two FRDC projects are complete and submitted, recommendations can be reviewed and next steps identified to inform Activity 5.3.
- **Activity 5.4. Develop short-course training material for industry on management of aquatic animal disease incidents (including reporting procedures, collecting samples for laboratory diagnostics and record keeping)** – SCAAH, in consultation with industry sectors, will develop short course training material for industry on the management of aquatic animal disease incidents including reporting procedures, collecting samples for laboratory diagnostics and record-keeping. Individual jurisdictions will then be able to adapt these materials to help industries better identify disease issues and support strengthened disease investigation activities.



Photo: D. Lightner

Activities not commenced – 2

- **Activity 1.2. Develop a program to support farms to develop and implement enterprise-level biosecurity plans** – This activity will follow completion of Activity 1.1.
- **Activity 5.3. Develop national aquatic animal health curricula for veterinary and vocational education** – This activity will be progressed following outcomes of two FRDC projects due for completion (see Activity 5.2).

AQUAPLAN 2014–2019 can be accessed online through the Department of Agriculture at agriculture.gov.au/animal/aquatic/aquaplan or for a hard copy contact the Aquatic Pest and Health Policy team at the Department of Agriculture on AAH@agriculture.gov.au.

Other SCAAH projects

Pacific oyster health management

SCAAH members and industry representatives consider the health management needs of the Pacific oyster farming industry on an ongoing basis — particularly in relation to Pacific oyster mortality syndrome. New Zealand now participates in this activity.



Established pests and diseases of national significance

SCAAH is implementing the *Framework for the National Management of Established Pests and Diseases of National Significance* for aquatic animal diseases as part of the Intergovernmental Agreement on Biosecurity.

Domestic management of megalocytiviruses

Biosecurity Advice 2014/11 Quarantine policy for freshwater ornamental finfish from approved countries was released on 8 September 2014 and was to be effective from 1 March 2015. The date for implementation of the new import policy has now been revised to 1 March 2016 following discussions with several major exporting countries. SCAAH members are developing a domestic management protocol for megalocytiviruses in a manner consistent with the proposed new import requirements.

National Policy Guidelines for Translocation of Domestic Bait and Berley

In 2009, the Department of Agriculture and FRDC funded a project to assess the disease risks associated with the translocation of domestic bait and berley. SCAAH members considered the findings of the project and found that national policy guidelines for the translocation of domestic bait and berley were warranted. The *National Policy Guidelines for Translocation of Domestic Bait and Berley* were developed to provide a framework for Australia's states and territories to develop nationally consistent bait translocation policies to address identified disease risks such as AVG in abalone and epizootic haematopoietic necrosis virus in redfin perch. The guidelines provide information on bait and berley products, the nature of disease risks, principles for policy development, possible instruments for managing identified risks and a staged approach for policy development. The policy guidelines were endorsed by SCAAH in November 2014 and AHC in January 2015 and are now available on the Department of Agriculture's website: agriculture.gov.au/animal/aquatic/guidelines-and-resources.

Update on the development of formal industry-government emergency aquatic animal disease response arrangements

Australia has formal industry-government arrangements in place for responding to terrestrial plant pest and animal disease emergencies, but not for aquatic animal disease emergencies. Fisheries and aquaculture industries, and governments have agreed on a detailed four-year work plan to address this gap.



Jane Frances was appointed by AHA in 2014 to manage the agreed work plan. A priority in year one of the work plan is to clarify the implications of fisheries resource ownership within each jurisdiction. The legalities of aquatic resource ownership vary between jurisdictions, with some states conferring ownership of all wild fish and other fauna and flora found in their waters, while others regulate/manage fisheries resources but do not assert ownership. An understanding of resource ownership in each jurisdiction will be important in considering potential contributions to an emergency response and any owner reimbursement eligible under an industry-government deed.

A consultancy has commenced that aims to identify principles for determining the balance of public and private benefits arising from emergency aquatic animal disease responses. This work is of fundamental importance to the project because it will guide discussion on how costs and responsibilities could be shared between industries and governments.

The project manager regularly engages with SCAAH members for expert opinions/comments (most recently at the SCAAH-21 meeting and workshop, 11-12 March 2015), and provided AHC with a progress update at their April 2015 meeting.

Aquatic animal disease issues

At each SCAAH meeting members report on significant or emerging aquatic animal health issues and initiatives. Items discussed at recent SCAAH meetings include:

- Pacific Oyster Mortality Syndrome (POMS; caused by infection with OsHV-1 microvariant) was reconfirmed in NSW in the 2014–2015 season and POMS related quarantine orders remain in place for the Georges River, Hawkesbury River and Brisbane River. Production of Pacific oysters in NSW has decreased by almost 50% and there is now no commercial farming of Pacific oysters in the Hawkesbury or Georges Rivers. SCAAH members discussed quarantine arrangements that are in place, research developments and communication with industry.
- Fish kills. No disease-related fish kill incidents were reported this year. While many fish kills are the result of environmental factors, SCAAH has an interest in investigations to exclude aquatic animal diseases as a potential cause to ensure rapid response to possible disease incursions, and facilitate trade and export requirements for seafood industries. One fish kill event in South Australia was found to be caused by a drop in dissolved oxygen to zero over two days, while a *Hematodinium*-like organism (not notifiable, but considered endemic) was observed in wild caught blue swimmer crabs (*Portunus armatus*) of poor health.
- *Perkinsus olseni* was reported for the first time in the Australian native flat oyster (*Ostrea angasi*). The oysters were wild-sourced broodstock held under stressful conditions with poor feed availability. The presence of *P. olseni* in *O. angasi* represents infection of a new species and triggered national reporting to the World Organisation for Animal Health (OIE) as an immediate notification.

- New Zealand reported on the presence of *Perkinsus olseni* in green-lipped mussels (*Perna canaliculus*) and scallops (*Pecten novaezelandiae*) and *Bonamia ostreae* in native oysters (*Tiostrea chilensis*). This is the first detection of *P. olseni* in New Zealand green-lipped mussels and scallops and the first detection of *B. ostreae* in New Zealand. Investigations to determine the distribution of *B. ostreae* are underway.
- AAHL is collaborating with the Tasmanian Department of Primary Industries, Parks, Water and Environment in molecular characterisation of the viral pathogens; Tasmanian aquabirnavirus, Tasmanian salmonid reovirus and salmonid orthomyxovirus (SOMV). Pilchard orthomyxovirus (initially found in 1998 in South Australia) is now known to be identical to SOMV. Outbreaks in salmon are associated with pilchards schooling around cages — infected pilchards are sub-clinical but infected salmon can show signs of disease and mortalities have been recorded. SOMV was first detected and reported in 2006, however prior to 2012 it had not been associated with disease.

Changes to the National List of Reportable Diseases of Aquatic Animals

The National List includes aquatic animal diseases that are exotic to Australia and some that occur in parts of Australia. All states and territories provide quarterly reports to the Australian Government on the status of diseases on the National List. This information is used to support Australia's disease status and to meet international reporting requirements. The current National List can be found on the Department of Agriculture website at: agriculture.gov.au/animal/aquatic/reporting/reportable-diseases.

Since SCAAH considered the National List in February 2014 there have been two name changes to the reportable diseases listed by the OIE and the Network of Aquaculture Centres in Asia-Pacific, in line with OIE's move to name diseases as "infection with [pathogen name]". At the SCAAH-21 meeting (March 2015), members proposed these two suggested name changes to the National List which were then endorsed by AHC in April 2015.

Changes to the National List of Reportable Diseases of Aquatic Animals (2015)
1. Name changes for: <ol style="list-style-type: none"> 'Yellow head disease' to 'Infection with yellow head virus' 'Necrotising hepatopancreatitis' to 'Infection with <i>Candidatus Hepatobacter penaei</i>'.

AQUAVETPLAN manuals

The Australian Aquatic Veterinary Emergency Plan (AQUAVETPLAN) includes a series of manuals that outlines Australia's approach to national disease preparedness and proposes the technical response and control strategies in the event of an aquatic animal disease emergency. The manuals are prepared during 'peace time' which not only ensures critical information is readily available in the event of an actual emergency, but also provides the aquatic animal sector with tools for training and preparedness activities.



AQUAVETPLAN manuals are working documents that are updated as required to ensure they take into account new research, experience, and emerging disease threats. SCAAH provides scientific and technical advice for new and updated manuals. AQUAVETPLAN manuals recently published, undergoing development or review include:

- Abalone viral ganglioneuritis (AVG) disease strategy manual—new manual published in September 2014.
- Viral haemorrhagic septicaemia (VHS) disease strategy manual—revised manual published in February 2015.
- Infection with ostreid herpesvirus-1 microvariant (OsHV-1 μ var) disease strategy manual—new manual published in April 2015.
- Enterprise management manual—revised manual published in May 2015.
- Viral encephalopathy and retinopathy (VER), crayfish plague, whirling disease and withering syndrome of abalone disease strategy manuals—all are under revision and will be published when they have been endorsed by governments and relevant industries.

SCAAH routinely considers the need to revise AQUAVETPLAN manuals to ensure they remain current. At the SCAAH-21 meeting, members considered the need to review the following manuals.

- Infectious salmon anaemia (ISA) disease strategy manual. The manual was published in 2009 and since this time there has been new information published on the epidemiology of ISA. A call for expressions of interest to review this manual has been circulated.
- Decontamination manual (published 2008). The OIE is developing new guidance on disinfection for its Aquatic Animal Health Code. SCAAH agreed to await completion of that work prior to revision of the decontamination manual.



AQUAVETPLAN manuals are published on the Department of Agriculture website at: agriculture.gov.au/animal/aquatic/aquavetplan.

FRDC Aquatic Animal Health Subprogram funding priorities

The FRDC Aquatic Animal Health Subprogram provides national leadership and coordination for aquatic animal health research and development. SCAAH members contribute to the Subprogram's annual aquatic animal health development R&D priority setting process. The subprogram considered SCAAH advice in developing its priorities for inclusion in the 2016 call for expressions of interest.

More information on the Aquatic Animal Health Subprogram can be found at frdc.com.au/research/aquatic_animal_health/Pages/default.aspx. You can also sign up to receive the FRDC Aquatic Animal Health Subprogram biannual newsletter - *Health Highlights* by contacting Joanne Slater at joanne.slater@csiro.au.

Neptune - aquatic animal health online community space

Neptune is an online database containing information on aquatic animal pathogens and diseases. Users are able to search for disease information using a variety of fields including host species, disease, disease agent, event location and affected host organisms. Neptune also hosts a collection of whole slide digital microscope images that can be used for reference or training purposes as well as live online presentations on aquatic animal diseases. SCAAH members have agreed that Neptune will become the principal national online information resource for aquatic animal health.

Future work to enhance Neptune will include the scanning of approximately 1000 additional histopathology slides.

For more information on Neptune, please contact the Department of Agriculture's Aquatic Pest and Health Policy section AAH@agriculture.gov.au

Revision of the National Policy for the Translocation of Live Aquatic Organisms (1999)

At the SCAAH-20 teleconference (10 November 2014), members agreed to lead the cross sectoral revision of the *National Policy for the Translocation of Live Aquatic Organisms 1999* and that the SCAAH secretariat would develop draft terms of reference for the review. SCAAH also agreed that the name of the policy should be changed to the '*National Policy for the Domestic Translocation of Live Aquatic Animals*' to limit the scope to animals. At the SCAAH-21 meeting (11-12 March 2015) three SCAAH members nominated to join the review and nominations are now being sought from the Marine Pest Sectoral Committee and the Invasive Species Committee.



Laboratory responsibilities

Following the dissolution of the Sub-Committee on Animal Health Laboratory Standards (SCAHLs) in December 2014, SCAAH has resumed responsibility for several laboratory activities including updating and maintaining the national aquatic animal disease laboratories' capabilities database, continuation of the 'slide of the quarter' and managing the review/development of Aquatic Australian and New Zealand Standard Diagnostic Procedures (ANZSDPs).

Further information and feedback

For further information on items in this newsletter or SCAAH, please contact the Executive Officer, Melanie Allan, by email at scaah@agriculture.gov.au or on (02) 6271 4431. Feedback and suggestions for future newsletter items are also welcome.



SCAAH members and observers at the SCAAH-21 meeting in New Zealand, March 2015

Membership – Current July 2015

Constituency	Member	Agency
VIC (Chair)	Charles Milne	Department of Economic Development, Jobs, Transport and Resources, Victoria
Department of Agriculture (Deputy Chair)	Ingo Ernst	Animal Health Policy, Department of Agriculture
Department of Agriculture	Yuko Hood	Animal Biosecurity, Department of Agriculture
NT	Kitman Dyrting	Department of Primary Industry and Fisheries, Northern Territory
NSW	Juliet Corish	Department of Primary Industries, NSW
QLD	Stephen Wesche	Biosecurity Queensland, Department of Agriculture and Fisheries
TAS	Kevin Ellard	Department of Primary Industries, Parks, Water and Environment
VIC	Tracey Bradley	Department of Economic Development, Jobs, Transport and Resources, Victoria
WA	Cecile Dang	Department of Fisheries, WA
SA	Shane Roberts	Primary Industries and Regions of South Australia (PIRSA) Fisheries & Aquaculture
CSIRO AAHL	Mark Crane	CSIRO Australian Animal Health Laboratory
University	Richard Whittington	University of Sydney
NZ	Brian Jones	Ministry for Primary Industries, Wallaceville, NZ
Observers		
SA	Marty Deveney	South Australian Research and Development Institute
NAAHIRG	Pheroze Jungalwalla	National Aquatic Animal Health Industry Reference Group (NAAHIRG)
NSW	Melissa Walker	Department of Primary Industries, NSW
Animal Health Australia	Jane Frances	Animal Health Australia
SCAAH Executive Officer		
Department of Agriculture	Melanie Allan	Animal Health Policy, Department of Agriculture