



AQUAPLAN

a five-year review



Developments in national aquatic animal health management in Australia 1997-2002

AQUAPLAN outlines Australia's national strategic plan for aquatic animal health. It was jointly developed by the Commonwealth and State and Territory governments and private industry sectors. The production of AQUAPLAN was coordinated by the Office of the Chief Veterinary Officer within the Commonwealth Department of Agriculture, Fisheries and Forestry on behalf of the Fish Health Management Committee.

This review of work conducted under AQUAPLAN during the period 1997-2002 was prepared by the Secretariat of the Fish Health Management Committee.

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For further information regarding AQUAPLAN please contact:

Aquatic Animal Health
Office of the Chief Veterinary Officer
Agriculture, Fisheries and Forestry – Australia
GPO Box 858
Canberra, ACT 2601
Phone: 02 6272 4328





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Executive Summary

Australia's fisheries and aquaculture are of increasing economic importance in Australia. Their capacity to contribute through export earnings and job creation especially in regional Australia is a vital part of our future prosperity. The gross value of aquaculture production (A\$750 million in 2000-01) now exceeds 30% of the total value of fisheries, with major contributing sectors being pearl farming, tuna cage culture, salmon culture, edible oysters and prawn culture¹.

Recognising the critical importance of aquatic animal health for overall profitability, sustainability, competitive trade advantages and public health, the Commonwealth Government in 1997 established the Fish Health Management Committee (FHMC) with the mandate to develop a comprehensive aquatic animal health plan for Australia and to address management procedures for aquatic animal disease emergencies. In 1999, the then Ministerial Council on Forestry, Fisheries and Aquaculture (MCFFA) endorsed the resulting national strategic plan for aquatic animal health – AQUAPLAN – which had been developed jointly by a wide range of fishing industry sectors and the Commonwealth and State and Territory governments.

For the past five years, members of FHMC and their supporting agencies and industries have implemented a wide range of priority AQUAPLAN projects. Projects completed over the last years include the production and publication of the *Australian Aquatic Animal Diseases Field Identification Guide*; conducting disease simulation exercises for governments and industries; production of manuals for AQUAVETPLAN (Australia's Aquatic Animal Disease Veterinary Emergency Plan); preparation of several key import risk analyses; publication of *AQUAPLAN Disease Zoning Policy Guidelines*; review of current surveillance and monitoring programs for aquatic animal diseases and subsequent drafting of a business/operational plan for an aquatic animal health information system; writing of Australian Standard Diagnostic Techniques for prioritised diseases and Standard Operating Procedures; establishment of a chapter for aquatic animal health with the Australian College of Veterinary Scientists; and provision of training in aquatic animal health management to tertiary students (veterinary medicine and aquaculture).

FHMC was established as an interim body until permanent arrangements for the national management of aquatic animal health could be established. Over the past two years, an extensive

¹ ABARE 2002, *Australian Fisheries Statistics 2001*, Canberra.

process of review and stakeholder consultation led to the formal suggestion to establish the Aquatic Animal Health Committee (AAHC) to replace FHMC. Australia's Primary Industries Standing Committee (PISC) in September 2002 endorsed the establishment of the AAHC as the primary industry/government interface – responsible to the

Primary Industries Health Committee and through it to PISC – for policy, communication and awareness related to aquatic animal health issues.



Australia is the world's first country to have a national, joint industry/government strategy for aquatic animal health (AQUAPLAN).

Establishing AAHC as the body to oversee its refinement, update and continuing implementation as well as guide the future management of aquatic animal health is the logical next step to ensure:

- Integration of the States' and Territories' aquatic animal health responsibilities with the Commonwealth Government's role of maintaining quarantine, meeting international requirements for disease reporting, developing trade relationships and negotiating market access;
- Avoidance of duplication between States, and addressing cross-border issues consistently;
- Provision of an avenue for input by the private sector; and
- Utilisation of expertise that may only be available in aggregate.

Despite the considerable progress made under AQUAPLAN to date, several major challenges still lay ahead. Examples include:

- Biological challenges, e.g. identifying and addressing potential and emerging health issues especially in 'new' aquaculture species in a proactive manner;
- Policy challenges, e.g. developing cost-sharing arrangements for the management of aquatic animal health in Australia.

- For the first 2.5 years, AAHC core funding will be derived from government sources (50% Commonwealth; 50% States and the Northern Territory in aggregate), however, this core funding will not provide for actual projects, and AAHC will need to respond to identified resource requirements of national aquatic animal health policies and programs. It is crucial for the effective and sustainable management of aquatic animal health jointly by governments and industry that a true tri-partite funding arrangement be developed by AAHC as a key priority, to enable industry contributions after 30 June 2005.

- AAHC will need to address the development of a cost-sharing arrangement for management of emergency aquatic animal disease incidents.

- Because of its full State and Territory representation, AAHC is also ideally placed to progress the many cross-jurisdictional issues, e.g. the implementation of zoning and translocation guidelines in each jurisdiction; coordination of surveillance and monitoring; and coordination of consistent policy and legislation across jurisdictions.

- Diagnostic challenges: Continuously updating and improving Australia's capability and capacity to rapidly and effectively identify aquatic animal diseases;
- Trade challenges: Effectively influencing the setting of international aquatic animal health standards through providing sound scientific advice.

In summary, AAHC will take a lead role in developing and reviewing national aquatic animal health policies and programs, and provide advice and submit recommendations to PISC and other stakeholders on those issues. A first formal review of AAHC is to take place before 30 June 2004.



Introduction

Australia's fisheries and aquaculture are of increasing economic importance in Australia. Their capacity to contribute through export earnings and job creation especially in regional Australia is a vital part of our future prosperity. Aquaculture in particular continues to grow, in volume, earnings, and in the relative share in all fisheries production. The gross value of aquaculture production in Australia rose by 146% over the last decade, compared with a rise of 46% for the total value of fisheries production. The gross value of aquaculture production (A\$750 million in 2000-01) now exceeds 30% of the total value of fisheries, with major contributing sectors being pearl farming, tuna cage culture, salmon culture, edible oysters and prawn culture².

Diseases have the capability to seriously impede profitability and sustainability of aquaculture production; next to direct loss of stock through death and morbidity, the costs associated with attempts to control or mitigate an outbreak may render a business commercially unviable.

Furthermore, overseas experience has shown that some aquatic animal diseases can lead to catastrophes of socio-economic dimension, causing dramatic economic losses not only to an individual enterprise but to a national economy³.

Australia is fortunate to be free from many diseases that occur elsewhere in the world, and this provides us with a comparative advantage in both production as well as in trade. Australia's capacity to produce "clean green" seafood of superior quality allows ready access to overseas markets, enhances competitiveness and also provides value adding through the capacity to attract premium prices.

It is vital for Australia to maintain this relative disease free status. Industry and government have

recognised the importance of an integrated and planned approach on aquatic animal health. This led to the cooperation between industry and government in developing AQUAPLAN, Australia's five year National Strategic Plan for Aquatic Animal Health. AQUAPLAN is a comprehensive document describing initiatives ranging from border controls and import certification through to enhanced veterinary education and improved capacity to manage incursions of exotic diseases, the latter coordinated under AQUAVETPLAN, Australia's Aquatic Animal Diseases Veterinary Emergency Plan. The eight programs described in this plan represent a world first in proactive management of aquatic animal health.

In 1997, the Commonwealth Government established the Fish Health Management Committee (FHMC) with the mandate to develop a comprehensive aquatic animal health plan for Australia and to address management procedures for aquatic animal disease emergencies. In 1999, the then Ministerial Council on Forestry, Fisheries and Aquaculture (MCFFA) endorsed the resulting national strategic plan for aquatic animal health – AQUAPLAN – which had been developed jointly by a wide range of fishing industry sectors and the Commonwealth and State and Territory governments.

FHMC was established as an interim body until permanent arrangements for the national management of aquatic animal health could be established. Over the past two years, an extensive process of review and stakeholder consultation has led to the formal suggestion to establish the Aquatic Animal Health Committee (AAHC) to replace FHMC and in the future act as the primary industry-government interface for policy, communication and awareness related to aquatic animal health issues.

For the past five years, members of FHMC and their supporting agencies and industries have implemented a wide range of priority AQUAPLAN projects. The progression from FHMC to AAHC provides a timely opportunity to reflect on past



² ABARE 2002, *Australian Fisheries Statistics 2001*, Canberra.

³ Examples include the white spot disease epidemics in farmed shrimp in Asia and South America and infectious salmon anaemia in farmed Atlantic salmon in northern Europe and North America.

achievements and present a comprehensive report on the progress achieved to date under AQUAPLAN.

Background

In the wake of the 1995 pilchard mortality in southern Australian waters, the then Standing Committee on Fisheries and Aquaculture (SCFA) reported to MCFFA in November 1995 that priority should be given to developing a national response mechanism for fisheries and aquaculture emergencies. Subsequently, several comprehensive reviews were formally tabled within Australia; these critically assessed, and made recommendations for, Australia's national response to fisheries and aquaculture emergencies⁴, Australia's quarantine including aquatic animal quarantine^{5,6}, imported fish and fish products⁷, and management of incursions of pests, weeds and diseases⁸.

The Australian Government has a strong commitment towards aquatic animal health issues to ensure the effective and sustainable development and profitability of Australia's aquatic animal industries. In this context, the prevention and management of diseases are of paramount importance. In 1997, following a Cabinet decision relating to the 'Nairn' and the 'Higgins' reports (see footnotes), the Federal Government allotted \$6.7 million dollars over four years to the then Commonwealth Department of Primary Industries and Energy, now Department of Agriculture, Fisheries and Forestry - Australia (AFFA) to implement the recommendations of both reports. Of the total sum, \$2.7m were allocated to develop a comprehensive aquatic animal health plan for Australia, and to address management procedures for aquatic animal disease emergencies. The Commonwealth Government's response to the 'Nairn' and the 'Higgins' reports recognised that

"there should be a national approach [to fish health] jointly developed by the Commonwealth, states and industry that includes quarantine, research and education and public awareness as key components".

The response further noted that

"... it is also important to ensure that our priorities are correct and that the burden of resources is shared equitably among the beneficiaries".

Specifically, the response accepted Higgins Report Recommendation No. 36:

"That consideration be given to the establishment of an Aquatic Animal Health Management Sub-committee or, more appropriately, a Task Force reporting to SCFA and FEHC, with terms of reference to include development and implementation of a ten-to-fifteen-year strategic plan for research and diagnostic services for the aquatic animal health sector"⁹.

To achieve this goal, the then Commonwealth Minister for Primary Industries and Energy appointed FHMC as a joint industry-government committee. It was established as an interim body pending a decision on long-term administrative and funding arrangements. Under the oversight of FHMC, industries and governments developed a detailed framework for the management of aquatic animal health in Australia: *AQUAPLAN – Australia's National Strategic Plan for Aquatic Animal Health 1998-2003*. Between 1998 and 1999, stakeholders from governments and the private sector signed on to AQUAPLAN which was finally endorsed by Ministers in 1999.

In the May 2000 Budget, the Federal Government announced its *Building a National Approach to Animal and Plant Health* program. Within this initiative, approximately \$3m over four years were

⁴ Jones, R. 1995: *Managing the National Response to Fisheries and Aquaculture Emergencies*.

⁵ Nairn, M. E., Allen, P. G., Inglis, A. R. and Tanner C. 1996: *Australian Quarantine: a shared responsibility*. Department of Primary Industries and Energy, Canberra. 284pp.

⁶ Nunn, M. J. 1995: *Aquatic Animal Quarantine in Australia: Report of the Scientific Working Party on Aquatic Animal Quarantine*. Bureau of Resource Sciences, Canberra. 45pp.

⁷ Higgins, R. A. (chair) 1996: *Report of the National Task Force on Imported Fish and Fish Products*. Department of Primary Industries and Energy, Canberra. 269 pp.

⁸ *Report of the Standing Committee on Agriculture and Resource Management's Task Force into Managing Incursions of Aquatic Pests, Weeds and Diseases: 1997*.

⁹ Anderson, J. 1997: *Australian Quarantine: a shared responsibility – The Government response*. Department of Primary Industries and Energy, Canberra. 67pp.

made available as administered funds¹⁰ to Agriculture, Fisheries and Forestry – Australia (AFFA) to support aquatic animal health in four specific program areas, i.e. *Diagnostics, Emergency Management Planning, Emergency Management Training and Incident Simulation*, and the [Establishment of a] *Joint industry/ government body for aquatic animal health management*.

In addition, in the 2001 Budget, the Commonwealth Government provided departmental funds to AFFA to extend that Department's commitment to aquatic animal health for at least another four years.

The Past Four Years

AQUAPLAN is a broad, comprehensive strategy that outlines objectives and projects to develop a national approach to emergency preparedness and response and to the overall management of aquatic animal health in Australia. An electronic copy of AQUAPLAN is available at <http://www.affa.gov.au>.¹¹

The plan lays out eight key programs under which industry and government have identified priority projects, namely:

1. International Linkages;
2. Quarantine;
3. Surveillance, Monitoring and Reporting;
4. Preparedness and Response;
5. Awareness;
6. Research and Development (R&D);
7. Legislation, Policies and Jurisdiction; and
8. Resources and Funding.

The programs are directed to maximise Australia's ability to control aquatic animal disease outbreaks, maintain market access, support quality assurance and improve the productivity and sustainability of Australia's aquatic animal production industries.

Between 1998 and 2001, FHMC convened four annual AQUAPLAN Stakeholder Workshops to review progress made on AQUAPLAN projects and determine priorities for the upcoming year. These priorities were translated into annual AQUAPLAN work plans which were subsequently endorsed by FHMC's parent Standing Committee (see 'Interim Consultative Body' below for details).

Many stakeholders contribute to the implementation of such priority projects: the Commonwealth Government with its various groups within AFFA (the Office of the Chief Veterinary Officer (OCVO) which also provided the secretariat since late 1998); the Australian Quarantine and Inspection Service (AQIS) and Biosecurity Australia which together oversee Program 2; and the Fisheries and Aquaculture Branch who oversaw the first steps towards the development of AQUAPLAN), State and Territory governments; educational institutions; the commercial fishing (including aquaculture) and recreational fishing sectors, as well as the wider public – for example, through increased disease vigilance by the angling community.

Projects completed over the last years include the production and publication of the *Australian Aquatic Animal Diseases Field Identification Guide*; conducting disease simulation exercises for governments and industries; production of manuals for AQUAVETPLAN (Australia's Aquatic Animal Disease Veterinary Emergency Plan); publication of *AQUAPLAN Disease Zoning Policy Guidelines*; review of current surveillance and monitoring programs for aquatic animal diseases and subsequent drafting of a business/operational plan for an aquatic animal health information system; writing of Australian Standard Diagnostic Techniques for prioritised diseases and Standard Operating Procedures; establishment of a chapter for aquatic animal health with the Australian College of Veterinary Scientists; and provision of training in aquatic animal health management to tertiary students (veterinary medicine, aquaculture).

¹⁰ As per an Agreement between AFFA and the Fisheries Research and Development Corporation (FRDC), these monies are administered by the FRDC on AFFA's behalf. The FRDC's vehicle for delivery is the *FRDC Aquatic Animal Health Subprogram*.

¹¹ Click on Output 'Product Integrity/Animal and Plant Health' on the left side, then go to 'All Product Integrity / Animal and Plant Health Documents' and click on 'AQUAPLAN'.

The work of AQIS and Biosecurity Australia over the last four years in managing pest and disease risks associated with importation of aquatic animal commodities has included several key import risk analyses, defence of a World Trade Organization (WTO) challenge of Australia's salmon import restrictions and on-going policy and operational activities, in addition to significant contributions to various AQUAPLAN initiatives coordinated by the OCVO.

A full description of the achievements under AQUAPLAN is detailed in Appendix 1.

FHMC Meetings

Since its inauguration in 1997, FHMC has held 14 meetings and hosted four AQUAPLAN Stakeholder Workshops. Details of these meetings are provided in Table 1. Meetings were supported with OCVO and State government funds.

Table 1: Fish Health Management Committee meetings and AQUAPLAN Stakeholder Workshops

Meeting #	Location	Date
1	Teleconference	12 December 1997
First AQUAPLAN Workshop	Canberra	27-28 April 1998
2	Canberra	29 April 1998
3	Canberra	16 December 1998
Second AQUAPLAN Workshop	Canberra	15-16 June 1999
4	Canberra	16 June 1999
5	Teleconference	13 September 1999
6	Teleconference	2 December 1999
7	Teleconference	10 March 2000
Third AQUAPLAN Workshop	Canberra	10-11 May 2000
8	Canberra	11 May 2000
9	Teleconference	2 August 2000
10	Teleconference	25 October 2000
11	Adelaide	28-29 March 2001
Fourth AQUAPLAN Workshop	Brisbane	13-14 August 2001
12	Brisbane	15-16 August 2001
13	Brisbane	29-30 November 2001
14	Adelaide	24 July 2002



FHMC Members

FHMC was established in 1997 as committee of ten members representing governments and industry. In 2000, membership was expanded to include representatives of additional industry sectors. Lately, FHMC comprised 14 representatives from the Commonwealth, State and Territory governments; the peak aquaculture industry bodies of Australia;

the Australian Seafood Industry Council (ASIC); recreational fisheries (RecFish Australia); and CSIRO Livestock Industries¹². The Australian Chief Veterinary Officer chaired FHMC. Staff within the OCVO provided the secretariat.

There was no specific budget for the FHMC; the costs of committee members' and secretariat staff members' services were not recovered, and the effectiveness of

Table 2: Fish Health Management Committee members (listed by name)

Surname	First name	Representing	Member since	Member until
Bennison	Simon	National Aquaculture Council	2001	2002
Beumer	John	Standing Committee on Fisheries and Aquaculture	2001	2001
Breen	Martin	Australian Prawn Farmers Association	2000	2002
Buckley	Mick	Pearl Producers Association	2000	2000
Crane	Mark	CSIRO Animal Health	2001	2002
Gillespie (observer)	Jim	Aquaculture Committee	2001	2002
Horwood	Angus	RecFish Australia	1998	2001
Hurry	Glenn	AFFA	1998	2002
Jeffriess	Brian	Australian Seafood Industry Council	1998	2002
Jungalwalla	Pheroze	Tasmanian Salmonid Growers Association	2000	2002
McCallum	Brett	Pearl Producers Association	2001	2002
Murray (chair)	Gardner	AFFA	1998	2002
Neal (observer)	Russ	Australian Seafood Industry Council	2001	2002
Patrick	Jared	Pet Industry Joint Advisory Council	2000	2002
Pike	Graham	RecFish Australia	2001	2002
Pollock	John	Standing Committee on Agriculture and Resource Management	1998	2002
Pyne	Rex	Standing Committee on Fisheries and Aquaculture	2000	2001
Rickard	Mike	CSIRO Animal Health	1998	2000
Schaap	Alex	Standing Committee on Fisheries and Aquaculture	1998	1999
Scoones	Rick	National Aquaculture Council	1998	2000
Tynan	Ray	Oyster Research Advisory Committee	2000	2002

¹² Previously CSIRO Animal Health.

the Committee had to a large extent rely on the commitment and goodwill of its members. The members, their affiliation and the term that they served on FHMC are presented in Table 2.

Interim consultative body

During the period of 1998–2002, FHMC worked on the development, awareness and implementation of AQUAPLAN¹³. The committee has provided advice on strategic issues related to implementation of AQUAPLAN¹⁴, with operational aspects of emergency management response being outside its role. It was instrumental in setting up the FRDC Aquatic Animal Health Subprogram, which it advised on investment of Federal Budget Initiative *Building a National Approach to Animal and Plant Health* program funds through its AQUAPLAN Business Group which serves as the Subprogram's Steering Committee.

When initially set up, FHMC reported in parallel to SCARM and SCFA. When this proved impracticable in 1999, SCFA became the sole parent body. Following the re-organisation of Ministerial Councils and the underlying committee structures in 2001, FHMC now reports to the Primary Industries Standing Committee (PISC).

Permanent consultative body

FHMC was established as an interim body, and throughout its existence has worked towards the establishment of a permanent consultative body for aquatic animal health. Reflecting a widely acknowledged priority, AQUAPLAN itself does indeed recognise a need for

*'examination of the Australian Animal Health Council funding structures for the terrestrial animal industries as a potential model to be applied to the aquatic animal industries'*¹⁵.

Accordingly a review was instigated in 2000 to explore options for a permanent management mechanism for aquatic animal health. Relevant to the timing of the review was the availability of funds under the Federal Budget Initiative *Building a National Approach to Animal and Plant Health* program from mid 2000 to mid 2002, and the need to complete work on the Higgins Report Recommendation No. 36:

*'that appropriate resources be made available by the Commonwealth, states and industry to enable implementation of the recommendations of this report within five years'*¹⁶ (i.e., by the end of 2002).

As part of the review, a survey of key stakeholders as well as key stakeholder meetings were conducted to determine the best structure for such a body. There was no support for the immediate establishment of a stand-alone national aquatic animal health body along the lines of Animal Health Australia (AHA) and Plant Health Australia, not-for profit public companies established by governments and livestock industries and plant industries, respectively. Rather it was preferred that the consultative committee be serviced by a low-cost secretariat operating under the aegis of an existing organisation such as the FRDC or AHA.

Back-to-back with the August 2001 AQUAPLAN Stakeholder Workshop, government and industry stakeholders then considered the preferred options for a coordinating body. Virtually all stakeholders:

- did not want to create a new independent umbrella body, and
- agreed to set up a working group to review FHMC and provide recommendations for its future role, activities, structure and funding.

¹³ Activities have focused mainly on the aquaculture sector, reflecting the fact that non-farmed aquatic animals are less amenable to management actions because they grow in the wild. Nevertheless, some parts of the commercial wild-catch and recreational sectors are affected by aquatic animal health factors.

¹⁴ Activities have included development of emergency outbreak management arrangements for the wild-catch and aquaculture sectors and, in particular, activities relating to jurisdictional responsibilities, scientific expertise and resources (e.g. researchers, diagnostic capacity), monitoring and surveillance, contingency planning and response activities, exploring funding arrangements (including compensation and cost-sharing) and raising community awareness.

¹⁵ AQUAPLAN Program 8 – Resources and Funding. Project number 8.1.1.

¹⁶ Anderson, J. 1997: *Australian Quarantine: a shared responsibility – The Government response*. Department of Primary Industries and Energy, Canberra. 67pp.

A Working Group established by FHMC in August 2001 suggested the reconstitution of FHMC as a new body, the Aquatic Animal Health Committee (AAHC), with new Terms of Reference and a dedicated funding basis. In November 2001, FHMC concurred with the Working Group's report that the new AAHC should report to PISC. FHMC at their November 2001 meeting also discussed the draft business/operational plan for a new Australian Aquatic Animal Health Information System (AAAHIS). FHMC agreed that a 2-page summary document on suggested Terms of Reference for the new AAHC, its membership, *modus operandi*, and funding arrangements, needed to be widely circulated to stakeholders, accompanied by an AAHC draft business plan, by the FHMC Working Group Report, and by the revised AAAHIS Business/Operational Plan. Accordingly, FHMC secretariat undertook an extensive stakeholder consultation campaign – supported with Federal Budget Initiative *Building a National Approach to Animal and Plant Health* funds – between February 2002 and July 2002.

FHMC had its final meeting on 24 July 2002 in Adelaide (FHMC-14) as the last step in this AAHC stakeholder consultation process. FHMC endorsed the AAHC *draft Business Plan* (April 2002) with the following modifications:

- (a) Allow for full State and Territory jurisdictional representation on AAHC;
- (b) Establish AAAHIS as per AAAHIS *Operational Plan*; FHMC reconfirmed the establishment of AAAHIS as part of AAHC as a high priority, and industry representatives reaffirmed their commitment to financially contribute to AAAHIS.
- (c) Modify the role of AAHC and its executive secretariat to reflect the now suggested full State and Territory jurisdictional representation;
- (d) Change the AAHC budget to reflect that only industry members' travel costs to meetings will be covered whilst government members are expected to cover their own travel costs; and

(e) Use the moving 3-year-average of total fisheries production (including aquaculture) as the basis to determine the States' and the Northern Territory's contributions to AAHC and AAAHIS.

In August 2002, the formal suggestion was made to PISC to

'endorse the establishment of the AAHC as the primary industry/government interface – responsible to Primary Industries Health Committee (PIHC) and through it to Standing Committee – for policy, communication and awareness related to aquatic animal health issues.'

PISC discussed the suggested national consultative arrangements for aquatic animal health in session at their 5 September 2002 meeting (meeting Number 3; Agenda item 3.11) and endorsed the establishment of the AAHC as the primary industry/government interface – responsible to PIHC and through it to PISC – for policy, communication and awareness related to aquatic animal health issues. PISC also endorsed the AAHC *draft Business Plan* and that AAHC be initially chaired by the AFFA representative on PIHC.

PISC furthermore requested that AAHC (rather than PISC) give consideration to the establishment of the AAAHIS and future funding arrangements, and report back to PISC in March 2003.

Outlook

Australia is the world's first country to have a national, joint industry/government strategy for aquatic animal health (AQUAPLAN). Establishing the body to oversee its refinement, update and continuing implementation as well as guide the future management of aquatic animal health is the logical next step to ensure:

- Integration of the States' and Territories' aquatic animal health responsibilities with the Commonwealth Government's role of maintaining

quarantine, meeting international requirements for disease reporting, developing trade relationships and negotiating market access;

- Avoidance of duplication between States, and addressing cross-border issues consistently;
- Provision of an avenue for input by the private sector; and
- Utilisation of expertise that may only be available in aggregate.

The establishment of AAHC under PIHC ensures that expert advice is available to PIHC, Standing Committee and Ministerial Council on aquatic animal health matters, and that aquatic animal health has an unambiguous and dedicated place in the committee structure underpinning Ministerial Council. AAHC is also ideally placed to establish and maintain close linkages to Veterinary Committee on veterinary matters. AAHC's scope is clearly differentiated in the *AAHC draft Business Plan* from the scope of the Consultative Committee on Emergency Animal Diseases (CCEAD).

The presence of fisheries and aquaculture expertise on AAHC (through government and industry members) will ensure an expanded framework for policy and strategic discussions with organisations that have responsibility for fisheries management (including those operating within the Natural Resources Management Standing Committee and its Ministerial Council framework).

Despite the considerable progress made under AQUAPLAN to date, several major challenges still lay ahead. Areas and examples include:

- Biological challenges: Identifying and addressing potential and emerging health issues especially in 'new' aquaculture species;
- Policy challenges: Developing cost-sharing arrangements for the management of aquatic animal health in Australia;
- Diagnostic challenges: Continuously updating and improving Australia's capability and capacity to rapidly and effectively identify aquatic animal diseases;

- Trade challenges: Effectively influencing the setting of international aquatic animal health standards with sound scientific advice.

Industry has repeatedly identified several issues that need to be addressed and resolved. These issues include compensation for loss due to compulsory slaughter of stock and the development of a cost-sharing arrangement for management of emergency disease incidents. In addition, governments have identified the need for industries to contribute financially to aquatic animal health management as a key component of a final management arrangement.

During the stakeholder workshop conducted in August 2001, participants completed a gap analysis to identify areas of aquatic animal health that needed addressing. The identified issues included (in no particular order):

- Implementation of zoning and translocation guidelines in each jurisdiction
- Coordination and funding of additional surveillance and monitoring
- Coordination of state based monitoring databases
- Establishment of an authority to advise on the most appropriate diagnostic techniques
- Addressing the shortage of diagnostic capacity within Australia
- Prioritising the AQUAVETPLAN manuals that need to be produced
- Ensuring that State/Territories work within the CCEAD structure
- Addressing the lack of extension and communication about AQUAPLAN projects
- Coordinated development of training materials
- Coordination of consistent policy and legislation across jurisdictions
- Development of a framework to determine funding and compensation for compulsory slaughter and crop loss.

Some of these areas have been addressed in the past twelve months. In particular, the prioritisation of AQUAVETPLAN manuals has been completed and funding has been obtained to design and conduct a training course for CCEAD members. The formal and sustainable establishment of the National Fish Pathologists' Workshop as a working group under AAHC will provide a technical forum that can address issues such as appropriate diagnostic techniques, and this group has already established a sub-committee to consider action to address the shortage of diagnostic capacity in Australia.

Priority issues identified in the gap analysis (see above) will have to be subjected to a risk analysis in order to develop a sound operational plan. On this basis, the new AAHC will have to:

- Identify emerging aquatic animal health issues and make recommendations for policy development and management;
- Take a lead role in developing and reviewing national aquatic animal health policies and programs;
- Actively respond to identified resource requirements of national aquatic animal health policies and programs;
- Provide advice and submit recommendations to PISC and other stakeholders on those issues; and

- Report on strategic issues and submit recommendations relating to AQUAPLAN and its implementation to PISC and other stakeholders; and
- Review communication and extension strategies on aquatic animal health issues and facilitate implementation of those strategies.

As stipulated in the *AAHC draft Business Plan*, a formal review of AAHC is to take place before 30 June 2004.

Acknowledgements

The generous provision of strategic input by all FHMC members over the last five years is greatly acknowledged.

Australia's aquatic animal health experts from governments, academia, and the private sector are most gratefully thanked for their continuous and untiring provision of expert advice on a wide array of scientific and technical matters. Without their support, FHMC could have not operated effectively and authoritatively.



Acronyms and Abbreviations



AAAHIS	Australian Aquatic Animal Health Information System
AAHC	Aquatic Animal Health Committee
AAHL	CSIRO Australian Animal Health Laboratory
AAPQIS	Aquatic Animal Pathogen and Quarantine Information System
ACIAR	Australian Centre for International Agricultural Research
ACS	Australian Customs Service
AFFA	Department of Agriculture, Fisheries and Forestry - Australia
AHA	Animal Health Australia
AQIS	Australian Quarantine and Inspection Service
ASIC	Australian Seafood Industry Council
CCEAD	Consultative Committee on Emergency Animal Diseases
COMPILE	Customs Online Method of Producing from Invoice Lodgeable Entries
CPA	Crop Protection Approvals
CSIRO	Commonwealth Scientific and Industrial Research Organisation
FAO	Food and Agriculture Organization
FEHC	Fisheries Environment and Health Committee (of the then SCFA)
FHMC	Fish Health Management Committee
FRAB	Fisheries Research Advisory Body
FRDC	Fisheries Research and Development Corporation
IRA	Import risk analysis
MCFFA	Ministerial Council on Forestry, Fisheries and Aquaculture
NACA	Network of Aquaculture Centres in Asia-Pacific
NC	National Coordinator
OCVO	Office of the Chief Veterinary Officer
OIE	Office International des Epizooties
PIHC	Primary Industries Health Committee
PIJAC	Pet Industry Joint Advisory Council
PISC	Primary Industries Standing Committee
QUADs	Quadrilateral Group of Countries (Australia, New Zealand, United States, Canada)
RWG	Regional Working Group
SCARM	Standing Committee on Agriculture and Resource Management
SCFA	Standing Committee on Fisheries and Aquaculture
SDT	Standard Diagnostic Technique
SOP	Standard Operating Procedure
TCP	Technical Cooperation Programme
VHS	Viral haemorrhagic septicaemia
WSV	White spot virus
WTO	World Trade Organization

Appendix 1 – Achievements of AQUAPLAN

AQUAPLAN is comprised of eight programs, each is considered separately, and the achievements are compared to the initial objectives.

Program 1 – International Linkages

Objectives

- To promote and defend Australia's international trade interests in aquatic animals and their products, by
 - improving Australia's international trade status as a responsible importer and exporter of aquatic animals and products;
 - increasing Australia's international influence in establishing international and regional standards and guidelines through providing technical and scientific leadership.

Project 1.1.1. Development of regional technical guidelines for aquatic animal quarantine and health certification

Status: Completed

Summary outcomes:

A Food and Agriculture Organization (FAO) Technical Cooperation Programme (TCP) Project *Assistance for the Responsible Movement of Live Aquatic Animals* was launched by the Network of Aquaculture Centres in Asia-Pacific (NACA) in 1998, with the participation of 21 countries from throughout the region. It was driven by a Regional Working Group (RWG) and assisted by Technical Support Services and involved input from government-designated National Coordinators (NCs), NACA, FAO, the Office International des Épizooties (OIE – World Organisation for Animal Health), and regional and international specialists. Staff from the OCVO provided both a RWG member as well as the Australian NC, and additional OCVO as well. Biosecurity Australia officers participated extensively

throughout the two-year lifespan of the program. The resulting 'Regional Technical Guidelines' were endorsed by 21 Asian countries at a workshop held in Beijing in June 2000, and were published in December 2000 by the FAO, with subsequent publication of two accompanying documents, also developed with considerable input by Australian experts:

Publications – all available from the NACA website under <http://www.enaca.org/publications.htm#NewPublications>:

- Regional Technical Guidelines published in December 2000: FAO 2000 *Asia Regional Technical Guidelines on Health Management for the Responsible Movement of Live Aquatic Animals* and *The Beijing Consensus and Implementation Strategy*. FAO Fisheries Technical Paper 402, 53pp.
- Manual of Procedures published in 2001: FAO 2000 *Manual of Procedures for the implementation of the Asia Regional Technical Guidelines on Health Management for the Responsible Movement of Live Aquatic Animals*. FAO Fisheries Technical Paper 402/1, 106pp.
- Asia Diagnostic Guide published in December 2001: FAO 2001 *Asia Diagnostic Guide to Aquatic Animal Diseases*. FAO Fisheries Technical Paper 402/2, 237pp.

Follow-on activities:

Since 2001, implementation of the guidelines is facilitated by NACA who in turn are assisted by the Asia Regional Advisory Group on Aquatic Animal Health (established in November 2001). An OCVO staff member was appointed Vice-Chair of this group for the first three years.

Project 1.1.2. Agreement on important diseases in the Asia-Pacific region (for a list of reportable diseases under NACA/OIE) and OIE endorsement

Status: Completed

Summary outcomes:

As part of the FAO TCP Project *Assistance for the Responsible Movement of Live Aquatic Animals* implemented by NACA, a workshop was held in

January 1998 in Bangkok, Thailand, jointly with the OIE. As an RWG member, an OCVO officer attended this workshop where a list of diseases to be included in a NACA/OIE Quarterly Aquatic Animal Disease Reporting System was drafted. The draft list was endorsed by NCS, NACA and the OIE. Reporting began with the third quarter (July–September) of 1998.

Follow-on activities:

Since mid 1998, the OCVO collates information from the Australian States and Territories on all diseases listed for the NACA/OIE Quarterly Aquatic Animal Disease Reporting System, prepares quarterly consolidated reports (with information by month), and submits them to the OIE Regional Office on Tokyo and to NACA (see Project 1.3.3. below).



Project 1.1.3. Development of a data collection strategy for information on aquatic animal pathogens (in Australia) and commencement of entering such data into the FAO/NACA database 'AAPQIS' (Aquatic Animal Pathogen and Quarantine Information System)

Status: Completed

Summary outcomes:

Between 1998 and 2000, an OCVO officer fulfilled the role of NC for the FAO TCP *Project Assistance for the Responsible Movement of Live Aquatic Animals* implemented by NACA. The OCVO therefore accepted the responsibility of reviewing the published scientific literature for articles reporting new aquatic animal pathogens from within Australia. In late 1998, the OCVO submitted a list of pathogens to AAPQIS that were extracted from all literature published between 1994 and 1998.

Follow-on activities:

Since late 1998, the OCVO prepares and submits to NACA quarterly updates on the published scientific literature for articles reporting new aquatic animal pathogens from within Australia.

Project 1.2.1. Establishment of a working group to further discussions with OIE on designing a model to categorise aquatic animal diseases

Status: Completed

Summary outcomes:

Between 1999 and 2000, an OCVO officer chaired a working group established by, and reporting to, the Quadrilateral Group of Countries (Australia, New Zealand, United States, Canada) – the QUADs. Whilst the working group was initially tasked to assist the OIE in developing a new model for listing and categorising aquatic animal diseases, members quickly realised that there were wider issues surrounding these discrete problems. The working group – renamed as the *QUADs Working Group on Aquatic Animal Disease Concepts* – developed an issues paper on aquatic animal disease categorisation and notification which was endorsed by the QUADS in early 2000 and formally submitted to the OIE Fish Diseases Commission for consideration.

Follow-on activities:

The OIE's Fish Diseases Commission has taken the QUADs issues paper into account for their on-going deliberations with OIE Member Countries and the OIE International Animal Health Code Commission (terrestrial animals) on the development of disease listing and notification arrangements consistent for terrestrial and aquatic animals.

Project 1.2.2. Re-assess the current aquatic animal disease lists of OIE, and communicate findings to OIE

Status: On-going

Summary outcomes:

Australia influences OIE disease listings through a formal process, commencing with the collation of stakeholder comments from within Australia on the changes suggested by the OIE, and the subsequent consolidation of those comments into one national

response by OCVO staff. The response is then formally submitted to the OIE through Australia's national delegate to the OIE, Dr Gardner Murray.

Whilst some changes were suggested – and subsequently made – by the OIE over the last years, the OCVO has requested that OIE withhold any additions to, or deletions from, the lists until the new disease listing and notification arrangements are finalised (see Project 1.2.1. above).

Project 1.3.1. Fulfilling obligations to OIE on notifiable diseases of aquatic animals

Status: On-going

Summary outcomes:

Throughout the lifespan of AQUAPLAN, there was only one event where an exotic virus – white spot virus (WSV) – which is notifiable to the OIE was suspected in Australia (but fortunately confirmed only in imported prawns). The OCVO informed the OIE of the suspicion, and regular briefings were provided as long as the animal health investigations continued, in particular, on the subsequent survey of Australian crustaceans which confirmed Australia's status of freedom from WSV. The suspect presence of the disease agent was clearly distinguished in these reports from clinical disease – there was no evidence of the latter at any time.

Project 1.3.2. Fulfilling international obligations to the OIE on providing annual reports on our aquatic animal health status

Status: On-going

Summary outcomes:

Annual reports on Australia's aquatic animal health status are prepared each year by the OCVO and are submitted to the OIE as part of Australia's consolidated animal health report (see also projects 3.2.2. and 3.2.3. below).

Project 1.3.3. Initiation of regional aquatic animal disease reporting to OIE/NACA on diseases identified as 'reportable' on a regionally agreed-upon list of aquatic animal diseases

Status: Completed

Summary outcomes:

As part of the FAO TCP Project *Assistance for the Responsible Movement of Live Aquatic Animals* implemented by NACA, a workshop was held in January 1998 in Bangkok, Thailand, jointly with the OIE. A list of diseases to be included in a NACA/OIE Quarterly Aquatic Animal Disease Reporting System was drafted (see Project 1.1.2. above).

Since mid 1998, the OCVO collates information from the Australian States and Territories on all diseases listed for the NACA/OIE Quarterly Aquatic Animal Disease Reporting System, prepares quarterly consolidated reports (with information by month), and submits them to the OIE Regional Office on Tokyo and to NACA. The reports can be viewed on the website of the office of the OIE Regional Representation for Asia and the Pacific (<http://www.rr-asia.oie.int/>).

Follow-on activities:

This is an on-going activity which has become a core duty of the OCVO; it relies on the continuous and timely input of accurate data by States and Territories.

The following projects were added at Annual AQUAPLAN Stakeholder Workshops:

Project 1.1.4. Assessment of benefits from NACA membership from an aquatic animal health point of view in order to contribute to the general review of benefits from NACA membership

Status: Completed

Summary outcomes:

The OCVO has provided substantial input into the review, conducted by AFFA's Fisheries and Aquaculture branch, of NACA membership. The review identifies substantial benefits and recommends that membership of NACA be on-going.

It also recommended that Australia further develops its engagement and interaction with the NACA organisation to increase the benefits flowing to Australia.

Follow-on activities:

AFFA is seeking permanent funding for Australia's NACA membership through the current budgetary process based on the outcomes of the review.

Project 1.3.4. Availability of Australia's Quarterly Reports to OIE/NACA on the AFFA Website under Aquatic Animal Health

Status: Completed

Summary outcomes:

Australia's Quarterly Reports to OIE/NACA are available on the NACA (<http://www.enaca.org/Health/Quarterly/>) and OIE websites (<http://www.rr-asia.oie.int/>).

Follow-on activities:

The OCVO will continue to ensure that Australia's Quarterly Aquatic Animal Disease Reports are available on the AFFA website or through the OIE/NACA websites.

Project 1.3.5. Consideration to transfer OIE/NACA combined Quarterly Reports from 20 countries to AFFA Website under Aquatic Animal Health for availability within Australia

Status: Completed

Summary outcomes:

A hot-link to the website of the Office of the OIE Regional Representation for Asia and the Pacific (<http://www.rr-asia.oie.int/>) has been included on the AFFA website under Aquatic Animal Health, to provide direct access to Quarterly Aquatic Animal Disease reports from other countries in the region. The reports are also available at the NACA website which has also been hot-linked (<http://www.enaca.org/Health/Quarterly/>).

Follow-on activities:

The OCVO will ensure that hotlinks remain current.

Project 1.4.1. Effective influence on OIE deliberations

Status: On-going

Summary outcomes:

Since 2000, the OCVO provides a member on the OIE's Fish Diseases Commission (http://www.oie.int/fdc/eng/en_fdc.htm), enabling scientific and technical input into OIE deliberations.

As discrete, completed activities, Australia has directly influenced the OIE through chairing the *QUADs Working Group on Aquatic Animal Disease Concepts* (see Project 1.2.1. above), and through providing experts to write the chapters on Spawner-isolated mortality virus disease for the OIE *International Aquatic Animal Health Code* (http://www.oie.int/eng/normes/fcode/A_summry.htm) and the *Diagnostic Manual for Aquatic Animal Diseases* (http://www.oie.int/eng/normes/fmanual/A_summry.htm).

The OCVO circulates the meeting reports of the biannual meetings of the OIE Fish Diseases Commission to a broad range of Australian experts; these reports contain the drafts for comment of new chapters for the *Code*, and the OCVO coordinates the Australian response to these documents. In addition, and following the same process, Australia provides detailed comments on draft revisions to chapters in the *Manual*.

Australia has also successfully applied to modify the OIE *International Database for Aquatic Animal Diseases* (<http://www.collabcen.net/>) to more accurately reflect Australia's disease status.

Summary

- All projects within Program 1 are either completed or are on-going activities that are delivered through the coordination of the OCVO in close cooperation with State and Territory governments and aquatic animal health experts. The objectives of Program 1 have been met, and continue to be met, through these activities. In particular, Australia's international influence in establishing international and regional standards and guidelines through providing technical and scientific leadership has increased significantly, and Australian input is actively sought by international and regional organisations.

Program 2 – Quarantine

Objectives

- To review all quarantine policies for aquatic animals and aquatic animal products using a science based, consultative and transparent risk analysis process.
- To review and improve post-arrival quarantine procedures and operations.
- To meet documented international requirements relating to the export of aquatic animals and aquatic animal products.

Note: Commonwealth Government responsibility for quarantine (or biosecurity) issues relating to aquatic animals lies with the Australian Quarantine and Inspection Service (AQIS) and Biosecurity Australia, both within the Department of Agriculture, Fisheries and Forestry (AFFA). Their duties are broadly categorised into import and export related work. Biosecurity Australia undertakes policy reviews (including the coordination of import risk analyses) and makes recommendations on import policy to the AQIS. AQIS is responsible for the implementation of biosecurity policies under the *Quarantine Act*.

Project 2.1.1. Individual risk analyses for the major imported aquatic animal products of risk

Status: On-going

Summary outcomes:

From 1995-1999, Biosecurity Australia and the AQIS played a key role in Australia's defence in the World Trade Organization (WTO) of the Canadian challenge of salmonid product on importation restrictions, including preparing technical arguments and facilitating various domestic stakeholder input to the process. Associated with this WTO case, Biosecurity Australia completed import risk analyses (IRAs) for salmon product, marine finfish product and live ornamental finfish, based on which, new biosecurity policies were announced and implemented by AQIS.

IRAs on non-viable animals/products of prawns, bivalve molluscs, freshwater crayfish and freshwater finfish are currently under way. The latter two,

although still being progressed, have been accorded lower priority in the context of managing the group's resources.

The non-viable prawn and prawn products draft IRA is being revised, and interim biosecurity conditions have been implemented pending finalisation of the IRA.

The IRA on non-viable bivalve molluscs first initiated in 1998, but slowed due to other commitments, was recommenced mid-2001. A technical issues paper, including identification of potential hazards, was released in September 2002.

Technical issues papers have also been released for the freshwater crayfish and freshwater finfish product import risk analyses. The next step in each IRA will be the release of draft import risk analysis reports for public comment in 2003.

Following the discovery of viral haemorrhagic septicaemia (VHS) virus in pilchards and mackerel, interim biosecurity restrictions were introduced in May 2002. Biosecurity Australia is conducting a detailed policy review of VHS virus risks associated with product intended for direct introduction into natural waters.

A major auxiliary project is a consultancy on recreational fishing bait and berley use that will provide much needed information on bait-use patterns, particularly with respect to imported product. The survey results will be available in late 2002 and will feed into current and future IRAs.

Project 2.1.2. Publication of Import Risk Analysis Process Handbook

Status: Completed

Summary outcomes:

The *Import Risk Analysis Process Handbook* was published in 1998 and is available on the AFFA website (<http://www.affa.gov.au>).

Follow-on activities:

A revised version of the handbook has been prepared and has been circulated to stakeholders for comment.



Project 2.2.1. Review and regulation of post-arrival quarantine procedures for live fish.

Status: Completed

Summary outcomes:

The project has been completed and new health certification and post-arrival quarantine detention requirements have been in place since early 2000.

Follow-on activities:

Full implementation of testing requirements is on-track.

Project 2.2.2. Training of Quarantine Officers in aquatic animal quarantine

Status: On-going

Summary outcomes:

Training workshops on post-arrival quarantine procedures have been conducted for quarantine officers, and manuals detailing the procedures have been produced. Work Instructions on fish import clearance have been completed and distributed.

Project 2.2.3. Random sampling of imported fish products

Status: Completed

Summary outcomes:

A Technical Report on the random sampling of imported fish products has been finalised.

Follow-on activities:

The report will be used for specific programs developed through the IRA process as required.

Project 2.2.4. Dissemination of quarantine information on fish and fish products

Status: On-going

Summary outcomes:

All draft documents for comment, and finalised protocols are made available on the AFFA website (<http://www.affa.gov.au/animalbiosecurity>) as part of

the formal risk communication process.

A stakeholder register has been created and is used to disseminate quarantine information and gather stakeholder input. When warranted, public meetings are held to obtain stakeholder feedback on proposed changes to quarantine practices.

Project 2.3.1. Gather requirements from client areas such as Plant and Animal Programs, the International Policy Division and the Import Operations Section.

Status: Completed

Summary outcomes:

Relevant groups within AQIS have been consulted, and their input has been utilised in developing classification of commodity codes for improved quarantine import reporting.

Project 2.3.2. In-house classification of commodity/reporting codes

Status: On-going

Summary outcomes:

A new classification system is being developed as part of the AQIS Import Management System. Incident reporting software is also being developed to assess changing risks associated with commodity and countries. AQIS is working with the Australian Customs Service (ACS) to ensure quarantine integrity is maintained when COMPILE (Customs Online Method of Producing from Invoice Lodgeable Entries) is upgraded through the Cargo Management and Re-engineering project.



Project 2.3.3. Perform high level review of tariff profiles in COMPILE (Customs Online Method of Producing from Invoice Lodgeable Entries)

Status: Completed

Summary outcomes:

This project has been completed and the information included as a component of Project 2.3.5. (see below).



Project 2.3.4. Liase with industry/ Australian Customs Service (ACS) in regard to a tariff expert further reviewing the work done so far, and suppling additional input

Status: Completed

Summary outcomes:

A tariff expert and the Evaluation Unit of the ACS have reviewed and reported on classification of commodity/reporting codes. The resulting information was utilised to assist development of the new classification system described under Project 2.3.2. above.

Project 2.3.5. Implementation of additional classifications and code infrastructure

Status: Completed

Summary outcomes:

Additional codes have been developed to enable differentiation between green prawns, cooked prawns, wild-caught and farmed prawns. A specific code was developed to identify freshwater crayfish.

fishermen, commercial fishermen, food service industry, consumers and boaters. The bait and berley survey currently being conducted among recreational fishers is also being used as a tool to identify target groups for the awareness campaign.

Project 2.4.2. Development of Codes of Practice and use as an interim measure to maintain post-border integrity

Status: Completed

Summary outcomes:

A discussion paper recommending a practical way to develop Codes of Practice / Progressive Risk Management Strategies was circulated to industry organisations in June 2000. The covering note invited groups to seek comment or advice from AQIS on the development of the Codes. No responses were received.

Follow-on activities:

Further activity in this area will be part of the awareness campaign developed under Project 2.4.1.

The following projects were added at Annual AQUAPLAN Stakeholder Workshops:

Project 2.4.1. Raising public awareness on aquatic animal quarantine issues, and promoting AQIS's role in protecting aquatic animal health

Status: On-going

Summary outcomes:

A major awareness campaign on the safe use and handling of aquatic animals and their products is being developed by Biosecurity Australia in consultation with industry groups and State/Territory agencies. The program will target a wide range of groups including recreational

Summary

- All projects within Program 2 are either completed or are on-going activities that are delivered through AQIS and Biosecurity Australia. The objectives of Program 2 have been met, and continue to be met, through these activities. New import risk analyses or policy reviews will be conducted as the need arises.



Program 3 – Surveillance, Monitoring and Reporting

Objectives

- To consolidate information on and protect Australia's aquatic animal health status, by:
 - facilitating the detection and reporting of, and response to, aquatic animal disease outbreaks;
 - facilitating the enhancement of existing, and development of additional, national and interstate disease control programs and zoning policies;
 - supporting Australia's international disease reporting obligations to OIE (World Organisation for Animal Health);
 - supporting regional disease reporting to the Network of Aquaculture Centres in Asia and the Pacific (NACA).

Project 3.1.1. Assessment of the current status of surveillance and monitoring in Australia

Status: Completed

Summary outcomes:

A report produced within AFFA on the *Current arrangements for monitoring, surveillance and reporting of aquatic animal health in Australia* was tabled at the Fish Health Management Committee (FHMC) meeting in May 2000. Subsequently, a consultant was retained to review the report and recommend a way forward for developing monitoring and surveillance for aquatic animal disease in Australia. The consultant's report was endorsed by FHMC at their meeting in October 2000.

Follow-on activities:

The consultant retained to recommend a way forward for surveillance and monitoring in Australia subsequently developed a Business/Operational plan to establish the Australian Aquatic Animal Health Information System (AAAHIS) – see below Project 3.1.3.

Project 3.1.2. Development and review of surveillance and monitoring strategies for specific aquatic animal diseases in Australia

Status: On-going

Summary outcomes:

A National Survey to confirm the absence of white spot virus (WSV) from Australia was co-funded by the OCVO and Biosecurity Australia during 2001.

Funding has been provided through the Fisheries Research and Development Corporation (FRDC) for development of a zoning strategy to control the disease *Marteilia* in Sydney rock oysters. The primary objective of this project is to provide a scientifically-based zoning policy to prevent the spread of this pathogen between production areas and facilitate domestic and international market access for the industry. To achieve this, the researchers will – through sampling and appropriate diagnosis – identify *Marteilia* -free and *Marteilia* -endemic estuaries within oyster culture areas; determine the specific identity of *Marteilia* sp. from positive samples; develop a rational and effective program of surveillance for *Marteilia* ; and, in consultation with fisheries managers and industry, develop a coastal zoning plan for *Marteilia* . The project commenced in February 2002 and is scheduled to be completed in February 2005.

Future surveillance and monitoring strategies for specific aquatic animal diseases will substantially benefit from the establishment of AAAHIS (see Project 3.1.3.).

Project 3.1.3. Development of a system for surveillance and monitoring data administration

Status: Completed

Summary outcomes:

The consultant retained to recommend a way forward for surveillance and monitoring in Australia (see Project 3.1.1.) subsequently developed a Business/Operational plan to establish the Australian Aquatic Animal Health Information System (AAAHIS); this plan was endorsed by FHMC in November 2001. On advice from industry stakeholders, the

Business/Operational Plan for AAAHIS was incorporated into the new business plan for the proposed Aquatic Animal Health Committee (AAHC).

Follow-on activities:

At their September 2002 meeting, the Primary Industries Standing Committee (PISC) resolved that AAHC give further consideration to the establishment of the AAAHIS and report back to PISC in March 2003.

Project 3.1.4. Development of standardised diagnostic and sampling techniques, and standard operating procedures

Status: On-going

Summary outcomes:

Standard Diagnostic Techniques (SDTs) for five diseases (finfish: spring viraemia of carp, yersiniosis; molluscs: bonamiosis, haplosporidiosis; crustaceans: crayfish plague) and Standard Operating Procedures (SOPs) for *Virus Isolation and Collection*, and for *Submission of Finfish Samples*, have been authored, peer-reviewed, and are available on the AFFA website (<http://www.affa.gov.au>)¹⁷. SDTs for infectious salmon anaemia and white spot disease of crustaceans as well as an SOP for *Design and Implementation of Health Testing Protocols* are available in draft form and will be published on the website when peer review is complete.

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* has provided funding for development/improvement of diagnostic techniques for an additional seven diseases (finfish: aquatic birnavirus infection, piscirickettsiosis, nodavirus infection; epizootic ulcerative syndrome; crustaceans: crayfish plague, spawner mortality disease; molluscs: marteiliosis). An output of each project is an SDT which, when complete, will be published on the AFFA website.

Follow-on activities:

Publication of all aquatic animal SDTs and SOPs on CD ROM will occur in the near future, and publication in hard copy is being negotiated with

Veterinary Committee's Sub Committee Animal Health Laboratory Standards.

Project 3.2.1. Agreement on the national list of reportable diseases of aquatic animals, and development of a review process for alterations to the list

Status: Completed

Summary outcomes:

In 1998, Australian States and Territories through the then Standing Committees on Agriculture and Resource Management (SCARM) and on Fisheries and Aquaculture (SCFA) endorsed the concept, the purpose, as well as a then current version, of a National List of Reportable Diseases of Aquatic Animals ('the *National List*'). It was also agreed that the National List would be reviewed under the oversight of the FHMC, that FHMC would ensure input of scientific expertise, that FHMC-endorsed proposals for alterations would be submitted to Standing Committee(s) for approval, and that FHMC would ensure that appropriate industry experts (reflecting the aquaculture sector(s) affected) as well as State/Territory fish experts (reflecting the States/Territories affected) would be consulted and/or represented in these deliberations.

Since its inception in 1998, the National List was modified once, using the above process, commencing with State and Territory aquatic animal health specialists and then moving on through FHMC and Veterinary Committee to PISC who endorsed the changes in March 2002. Participants at the National Fish Pathologists' Workshops in 2001 and 2002 endorsed the mechanism that was used to change the National List.

Follow-on activities:

The consultation/endorsement process for a second set of changes was commenced in October 2002, and it is expected that changes will become necessary annually, as a result of changes made by the OIE to their aquatic animal disease lists.

¹⁷ Click on 'Product Integrity, Animal and Plant Health' in the OUTPUTS box on the left hand side of the AFFA home-page, then under 'All Product Integrity / Animal and Plant Health Documents', click on the folder 'AQUAPLAN'. In 'Overview of the AQUAPLAN Documents', click folder 'Standard Diagnostic Techniques'.

Project 3.2.2. Development of a generic strategy for national aquatic animal disease reporting and data administration system

Status: Completed

Summary outcomes:

In 1998, Australian States and Territories through the then SCARM and SCFA endorsed the concept, the purpose, as well as a then current version, of a National List of Reportable Diseases of Aquatic Animals ('the National List'). It was also agreed that disease reporting would consist of State coordinators collecting monthly information on the status of the listed diseases and report to the OCVO on a quarterly basis, using the regular OIE symbols for disease reports. The OCVO would collate the information into a central database and provide a full set of data (i.e. all data from all States and Territories) to all States and Territories on a quarterly basis – these data are confidential. The OCVO would also produce amalgamated, national reports – which are not confidential – for use in international reporting (see Projects 1.3.1.– 1.3.3. above).

Recently, a restricted-access e-mail notification system has been established by the same network for the sole purpose of rapidly and confidentially sharing relevant aquatic animal disease information outside of the regular quarterly cycle.

Follow-on activities:

Quarterly disease reporting by States and Territories commenced in the third quarter of 1998 and has continued since. Data are accumulated and stored on a database located within the OCVO.

Project 3.2.3. Adherence to international reporting objectives

Status: On-going

Summary outcomes:

Since mid 1998, the OCVO has collated information from the Australian States and Territories on all diseases listed for the NACA/OIE Quarterly Aquatic Animal Disease Reporting System, has prepared quarterly consolidated reports (with information by month), and has submitted them to the OIE Regional Office on Tokyo and to NACA. The reports can be

viewed on the website of the Office of the OIE Regional Representation for Asia and the Pacific (<http://www.rr-asia.oie.int/>) – see also Project 1.3.3.

Using the same data, the OCVO prepares annual reports on Australia's aquatic animal health status and submits them to the OIE as part of Australia's consolidated animal health report (see also Project 1.3.2.).

Follow-on activities:

This is an on-going activity which has become a core duty of the OCVO; it relies on the continuous and timely input of accurate data by States and Territories.

Project 3.2.4. Implementation of emergency disease reporting strategy as required

Status: On-going

Summary outcomes:

Since the implementation of AQUAPLAN, disease incidents requiring implementation of the emergency disease reporting strategy have not occurred within Australia.

Project 3.3.1. Development of a policy paper on zoning, explaining the generic principles of zoning based on pathogen distribution, the movement principles between zones, and international relevance of national zoning

Status: Completed

Summary outcomes:

The AQUAPLAN *Zoning Policy Guidelines* were prepared by a working group involving joint government and industry input and were subsequently endorsed by the then SCFA and SCARM in April and August 2000, respectively. The AQUAPLAN *Zoning Policy Guidelines* were widely distributed amongst stakeholders and were the subject of a workshop convened by the OCVO in January 2001.

Follow-on activities:

Responsibility for institution of zoning lies with State/Territory jurisdictions.

The following projects were added at Annual AQUAPLAN Stakeholder Workshops:

Project 3.1.5. Development of a 'surveillance and monitoring template' outlining principles of surveillance and monitoring programs, and including case studies as examples

Status: Completed

Summary outcomes:

In 1999, the Australian Centre for International Agricultural Research (ACIAR) published the *Survey Toolbox for Livestock Diseases*, targeted at veterinary workers in developing countries. Following the enthusiastic response from animal health workers to this book, now translated into four languages, ACIAR commissioned a version targeted at aquatic animal health. The book, known informally as the '*Tacklebox*', will be published in late 2002. It aims to provide simple, practical and easy to access methods for conducting aquatic animal disease surveys, and developing ongoing disease surveillance systems. Its purpose is to provide the tools required to generate the reliable disease information required for effective disease control and policy development. The *Tacklebox*¹⁸ will be distributed free of charge to researchers in developing countries. It will also be available for free download in electronic format from the author's website (www.ausvet.com.au).

Project 3.1.6. Involvement of recreational and capture fisheries in surveillance

Status: On-going

Summary outcomes:

Industry awareness of disease has been raised through participation in the bait survey conducted by Biosecurity Australia. The survey results will be available in late 2002.

Each jurisdiction also has a 24 hour Fish Kill hotline for reporting of fish kills. These numbers have been publicised within each jurisdiction and were also included in the *Australian Aquatic Animal Disease*

Identification Field Guide. Copies of the *Field Guide* have been made available to the recreational fishing sector at a discounted price.

Australia's *National Code of Practice for Recreational and Sport Fishing 2001* (available from RecFish's website <http://www.recfishoz.com/>) includes information on the reporting of fish kills.

Awareness of fish health has also been raised in the recreational fishing industry through publication in 2002 of an educational article in 'Angler Action', the magazine of the Australian Angling Association.

In the wake of suspicion of WSV in Australian prawns, capture fisheries have cooperated directly with the provision of information relating to their fishing grounds and the results of testing their catch of prawns for WSV (see also Projects 1.3.1. and 3.1.2. above).

Project 3.1.7. Advice on the most appropriate diagnostic techniques for aquatic animal diseases / disease agents

Status: On-going

Summary outcomes:

A range of Standard Diagnostic Techniques and Standard Operating Procedures have been commissioned and, as completed, will be published on the AFFA website (see Project 3.1.4. above).

The OIE-recommended diagnostic procedures are available in the OIE's *Diagnostic Manual for Aquatic Animal Disease* which is available on the OIE website under http://www.oie.int/eng/normes/fmanual/A_summry.htm.

OCVO staff contributed significantly to the *Asia Diagnostic Guide to Aquatic Animal Disease* (see Project 1.1.1. above).

The Second National Fish Pathologists' Workshop 2002 agreed that in order to support Consultative Committee on Emergency Animal Diseases (CCEAD) activities during an emergency, a set of disease fact sheets could usefully be produced during non-emergency times; the Workshop suggested that

¹⁸ *Survey Toolbox for Aquatic Animal Diseases – A practical manual and software package*. Written by Angus Cameron, published by Australian Centre for International Agricultural Research.

Federal Budget Initiative *Building a National Approach to Animal and Plant Health* funds be sought for a project consisting of a stock take of existing fact sheets; a gap analysis; and the filling of existing gaps as required.

Project 3.1.8. Addressing the worsening shortage of diagnostic capacity Australia-wide

Status: On-going

Summary outcomes:

An Aquatic Animal Health chapter of the Australian College of Veterinary Scientists has been established and conducted its first membership examinations.

The Second National Fish Pathologists' Workshop 2002 noted that whilst there is a need for skilled aquatic animal health veterinarians in

governments and the private sector, and whilst the current supply of adequately trained experts is poor, there is, on the other hand, only limited funding to create government positions for aquatic animal health experts and hence little justification to significantly expand undergraduate training courses.

However, alternative options to provide training at undergraduate and postgraduate level should be explored. At the Workshop, a committee was established to further develop the options to address the shortfall in skilled aquatic animal health veterinarians. The committee will report back to the 2003 workshop.

Project 3.2.2. Zoning – Turning guidelines into action to manage fish health preparedness and disease response and to retain market access

Status: On-going

Summary outcomes:

The AQUAPLAN *Zoning Policy Guidelines* (see Project 3.3.1. above) were published in 1999, and a national workshop was held on this topic in early 2001. Future activities within the States/Territories are likely to reflect the individual industries' needs for zoning. Some States have existing zoning policies for specific industries e.g. the zoning policy for the Western Australian pearling industry. Responsibility

for institution of zoning lies with State/Territory jurisdictions.

Project 3.2.3 Coordination of consistent implementation of zoning guidelines across States and Territories.

Status: On-going

Summary outcomes:

Both the AQUAPLAN *Zoning Policy Guidelines* (see Project 3.3.1. above) and the *National Translocation Policy for Live Aquatic Organisms* were endorsed by all States and Territories. Therefore, each jurisdiction's legislation and implementation of zoning should be consistent with the policy guidelines. Responsibility for institution of zoning lies with State/Territory jurisdictions.

Summary

- All projects within Program 3 are either completed or are on-going activities. Some of them those are delivered through the OCVO in cooperation with the States and Territories. Other projects are the primary responsibility of States and Territories.
- The enhancement of Australia's diagnostic capability is significantly supported through the Federal Budget Initiative Building a National Approach to Animal and Plant Health program, administered through the FRDC Aquatic Animal Health Subprogram. This funding will, however, expire on 30 June 2004.
- The new projects nominated at AQUAPLAN Workshops are predominantly in their early stages. Significant activity by States/Territories and industries will be necessary to complete these new projects.



Program 4 – Preparedness and Response

Objectives

- To develop effective institutional arrangements to manage emergency aquatic animal diseases in Australia.
- To develop a series of manuals and operational instruments which outline methods and protocols to manage emergency aquatic disease outbreaks in Australia (AQUAVETPLAN), based on the existing AUSVETPLAN arrangements.

Project 4.1.1. Formal inclusion of aquatic animal disease emergency management into the Consultative Committee on Emergency Animal Diseases (CCEAD) operating guidelines

Status: Completed

Summary outcomes:

In August 2002, the Primary Industries Standing Committee (PISC) endorsed a set of new operating guidelines for Australia's CCEAD, that clearly assign and detail CCEAD's role as the coordinating body providing the technical link between the Commonwealth, States, Territories and industry for the national technical response to terrestrial and aquatic animal health emergencies.

Project 4.1.2. Ensuring State/Territory arrangements comply with, and operate within, the CCEAD structure

Status: On-going

Summary outcomes:

White spot virus 'post-mortem' exercises were conducted with AFFA staff, State/Territory Chief Veterinary Officers and Directors of Fisheries, and with industry, between October 2001 and February 2002, reviewing not only the response to the specific incident, but also making recommendations for CCEAD's future responses to aquatic disease emergencies. The *Final Report on the Post Mortem Exercises on the Emergency Management Response*

to Evidence of White Spot Virus in Australia, (May 2002) included a set of recommendations which had been endorsed by CCEAD and were subsequently endorsed by PISC in September 2002. Amongst other things, the Final Report recommended that an education and training program on the CCEAD process be developed and undertaken by all participants of CCEAD including industry. OCVO staff were successful in obtaining Federal Budget Initiative *Building a National Approach to Animal and Plant Health* funds for a project to enhance emergency disease management through the education and training of the CCEAD participants on the CCEAD process.

Project 4.1.3. Simulation exercise especially to test the communication flow

Status: On-going

Summary outcomes:

OCVO staff have conducted disease simulation exercises for government officers and key industry staff in Queensland for the prawn and redclaw crayfish industries, in Tasmania for the Atlantic salmon industry, in Victoria for the trout industry and in South Australia for the abalone industry. Each exercise was tailored to the needs and aims of the particular jurisdiction and included discussions, table top exercises and field days.

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* has provided funding for further exercises in New South Wales (oysters), Victoria (abalone), Western Australia (non *Pinctada maxima* pearl oysters), and the planning of a multi-state exercise, using the Murray Darling Basin as a case study.

Project 4.2.1. AQUAVETPLAN Summary Document

Status: Pending

Production of the summary document can only be completed when a sufficient number of AQUAVETPLAN manuals have been written.

Project 4.2.2. Operational Procedures Manual

Status: On-going

Summary outcomes:

Staff within the OCVO have written the AQUAVETPLAN *Operational Procedures – Destruction* and the AQUAVETPLAN *Operational Procedures – Disposal* manuals. The manuals were endorsed by States/Territories and industry and were published in May 2002. The AQUAVETPLAN *Operational Procedures – Destruction* manual provides specific technical information on the rapid harvesting and destruction of aquatic animals. Information is provided that is relevant to finfish, crustacean and mollusc industries. The AQUAVETPLAN *Operational Procedures – Disposal* manual addresses issues such as safe transport of diseased aquatic animals and the most appropriate methods for safe disposal of diseased aquatic animals. Both manuals are designed to minimise the spread of disease in the face of an aquatic animal disease emergency. The manuals are available on the AFFA website (<http://www.affa.gov.au>)¹⁹.

Follow-on activities:

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* has provided funding for another operational manual, the AQUAVETPLAN *Operational Procedures – Disinfection*. This project is to commence in October 2002 and to be completed in September 2003.

Project 4.2.3. Valuation and compensation

Status: Pending

The Valuation and Compensation Manual was not accorded a high priority in previous stakeholder consultation rounds conducted to prioritise manual requirements. Production of this manual will occur as further funds become available.

Project 4.2.4. Enterprise Manuals

Status: Completed

Summary outcomes:

The AQUAVETPLAN *Enterprise Manuals* were completed, endorsed by States/Territories and industry, and published in December 2000. The AQUAVETPLAN *Enterprise Manuals* are aimed at both government and industry personnel who may be involved in emergency disease preparedness and response and are designed to enable decision-makers to access sufficient information on industry practices and environments to be able to create applicable control strategies at short notice. The manuals are also designed to inform industry personnel of the necessary steps and factors taken into account for decision-making under emergency conditions. The AQUAVETPLAN *Enterprise Manuals* provide brief information on industry practices and structures and then outline approaches which should be considered in the face of an aquatic animal disease emergency. The AQUAVETPLAN *Enterprise Manuals* are available on the AFFA website (<http://www.affa.gov.au>)²⁰.

Project 4.2.5. Disease Strategy Manuals for crustaceans, molluscs and fish

Status: On-going

Summary outcomes:

Staff within the OCVO have written the AQUAVETPLAN *Disease Strategy Manual – Furunculosis*. The manual was endorsed by States/Territories and industry and published in June 2001. The AQUAVETPLAN *Disease Strategy Manual – Furunculosis* includes information about furunculosis, its diagnosis and options for controlling it in case an outbreak is ever suspected or confirmed in Australia. The AQUAVETPLAN *Disease Strategy Manual – Furunculosis* also sets out an integrated planned approach to controlling furunculosis. The manual is designed for government and industry and provides decision-makers with quick and easy access to the information needed to implement control

¹⁹ Click on 'Product Integrity, Animal and Plant Health' in the OUTPUTS box on the left hand side of the AFFA home-page, then under 'All Product Integrity / Animal and Plant Health Documents', click on the folder 'AQUAVETPLAN'.

²⁰ Click on 'Product Integrity, Animal and Plant Health' in the OUTPUTS box on the left hand side of the AFFA home-page, then under 'All Product Integrity / Animal and Plant Health Documents', click on the folder 'AQUAVETPLAN'.

strategies at short notice. The manual is available on the AFFA website (<http://www.affa.gov.au>)²¹.

Follow-on activities:

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* has provided funding for additional disease strategy manuals for three finfish diseases (viral encephalopathy and retinopathy; viral haemorrhagic septicaemia; whirling disease) and two crustacean diseases (white spot disease; crayfish plague). All manuals will be completed prior to June 2004.

Project 4.2.6. Management Manuals

Status: Completed

Summary outcomes:

The AQUAVETPLAN *Control Centres Management Manual* was completed, endorsed by States/Territories and industry, and published in February 2002. It outlines the procedures, management structures and areas of responsibility that need to be in place at the local, State and Commonwealth levels in the advent of an outbreak. Specifically, the manual describes the roles of response personnel during the initial stages of an emergency; how to develop and manage disease control centres, and the various activities that need to be undertaken in or around infected areas. The AQUAVETPLAN *Control Centres Management Manual* can be used operationally, either as the primary manual or as a back up for specific action plans; as a planning tool to help develop more specialised procedures; and as a reference source in training exercises. The AQUAVETPLAN *Control Centres Management Manual* is available on the AFFA website (<http://www.affa.gov.au>)²².

Follow-on activities:

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* has provided funding to support the production of state-specific Control Centres Management Manuals.

Project 4.2.7. Agency Support Plans

Status: Pending

Agency Support Plans were not accorded a high priority in the previous rounds of stakeholder consultation conducted to prioritise manual requirements. Production of these plans will occur as further funds become available.

Project 4.2.8. Review and development of training resources

Status: On-going

Summary outcomes:

Federal Budget Initiative *Building a National Approach to Animal and Plant Health* has provided funding for the development of an aquatic animal *Exotic Disease Training Manual*. Another project funded this way is the development and conduct of an aquatic animal exotic disease training course to be held at the CSIRO Australian Animal Health Laboratory in Geelong (Victoria). One output of the training course will be a CD-ROM which will be available as a resource to veterinary practitioners and pathologists. These projects have commenced and are to be completed by June 2004.

Project 4.2.9. Diagnostic resources

Status: On-going

Summary outcomes:

A range of Standard Diagnostic Techniques (SDTs) and Standard Operating Procedures (SOPs) have been produced and are available on the AFFA website (<http://www.affa.gov.au>)²³. Further SDTs and SOPs are currently being written – see Project 3.1.4. above).

Australian scientists continue to assist in the on-going revision of the OIE's *Diagnostic Manual for Aquatic Animal Diseases*.

OCVO staff contributed significantly to the *Asia Diagnostic Guide to Aquatic Animal Disease* (see Project 1.1.1. above).

²¹ Click on 'Product Integrity, Animal and Plant Health' in the OUTPUTS box on the left hand side of the AFFA home-page, then under 'All Product Integrity / Animal and Plant Health Documents', click on the folder 'AQUAVETPLAN'.

²² Click on 'Product Integrity, Animal and Plant Health' in the OUTPUTS box on the left hand side of the AFFA home-page, then under 'All Product Integrity / Animal and Plant Health Documents', click on the folder 'AQUAVETPLAN'.

²³ Click on 'Product Integrity, Animal and Plant Health' in the OUTPUTS box on the left hand side of the AFFA home-page, then under 'All Product Integrity / Animal and Plant Health Documents', click on the folder 'AQUAPLAN'. In 'Overview of the AQUAPLAN Documents', click folder 'Standard Diagnostic Techniques'.

In 2000, the *Australian Aquatic Animal Diseases Field Identification Guide* was published and distributed throughout Australia (see Project 5.1.1. below), and an update and expansion is being considered.

The following projects were added at Annual AQUAPLAN Stakeholder Workshops:

Project 4.2.10. Prioritisation and coordination of Manuals

Status: On-going

Summary outcomes:

As per an Agreement between AFFA and the Fisheries Research and Development Corporation (FRDC), funds available for aquatics under the *Building a National Approach to Animal and Plant Health* are administered by the FRDC on AFFA's behalf. The FRDC's vehicle for delivery is the FRDC Aquatic Animal Health Subprogram.

In December 2001, governments and researchers as well as more than 60 key industry associations were asked to nominate priorities for program 'Emergency Management Planning' under the Federal Budget

Initiative *Building a National Approach to Animal and Plant Health*

program. By end of January

2002, thirteen

nominations had been received. The

Subprogram's Steering Committee and

Scientific Advisory

Committee evaluated and shortlisted the

nominations and sought expressions of interest from

possible providers. Of the

thirteen nominated priorities, ten

progressed into FRDC Board-approved projects all of which are active at this stage. The first manuals will be completed in the second half of 2003.



Prioritisation and production of additional manuals will occur as further funds become available.

Summary

- All projects within Program 4 are either completed or are on-going activities. Importantly, arrangements for the CCEAD response to emergency disease incidents in aquatic animals have been formalised.
- AQUAVETPLAN and disease response training are significantly supported through the Federal Budget Initiative Building a National Approach to Animal and Plant Health program, administered through the FRDC Aquatic Animal Health Subprogram. This funding will, however, expire on 30 June 2004.



Program 5 – Awareness

Objectives

- To increase awareness of aquatic animal health issues, by
 - providing education and training resources for all industry stakeholders and the general public;
 - encouraging the development of training and extension services in State and Territory Fisheries Departments and within private industry sector peak body associations;
 - encouraging the development of aquatic animal health management practices which decrease the reliance on drugs and chemicals ensuring their appropriate and minimal use.

Project 5.1.1. A Field Identification Guide for aquatic diseases

Status: Completed

Summary outcomes:

The *Australian Aquatic Animal Disease Identification Field Guide* was developed by officers within the Commonwealth Department for Agriculture, Fisheries and Forestry (AFFA) in close cooperation with industry, States and Territories, other Commonwealth departments, the scientific community, and the general public; it was published in March 2000. The *Field Guide* provides an informative account of the diseases and organisms that threaten Australia's aquatic animal industries. It also has information on diseases in other parts of the world and how they could affect Australian industries if they were to occur here.

The *Field Guide's* key feature is that it targets the very people whose interests and livelihoods depend on Australia having a healthy aquatic environment, the ones with the day-to-day contact with our aquatic animal life who are well-placed to undertake the necessary monitoring and surveillance.

Follow-on activities:

The Fisheries Research and Development Corporation (FRDC) Aquatic Animal Health Subprogram is considering an update and publication of the *Field Guide* on CD ROM.

Project 5.1.2. Summary document providing information on AQUAVETPLAN emergency response and preparedness program

Status: Completed

Summary outcomes:

A summary of AQUAPLAN, AQUAVETPLAN and the emergency response to an aquatic animal disease incursion was published as Exotic Diseases Bulletin No. 80 in the May 2002 edition of the *Australian Veterinary Journal*.

Project 5.1.3. Posters, pamphlets and videos for industry, veterinarians and the public

Status: On-going

Summary outcomes:

The simulation exercise conducted for the redclaw crayfish industry resulted in the development of a health plan that will be published and distributed to all industry members. The simulation exercises for the abalone industry and the salmon industry also produced draft emergency management plans which will be developed by industry and the South Australian and Tasmanian governments, respectively.

The Second National Fish Pathologists' Workshop (June 2002) recommended that an emergency management video be developed as an aquatic animal health educational tool. The possibility is under consideration by the FRDC Aquatic Animal Health Subprogram.

Project 5.1.4. Training for aquaculturists in aquatic animal health management and improving farm practices to promote disease prevention

Status: On-going

Summary outcomes:

Office of the Chief Veterinary Officer (OCVO) staff lectured annually at the University of Queensland's Aquaculture Health Management course from 1999 to 2001.

AFFA provided input into health management plans for the abalone aquaculture industry and crayfish industry in 2001. Simulation exercises in Queensland, Victoria and South Australia have included extensive industry participation with special industry days for members of the prawn and redclaw crayfish industries.

Project 5.1.5. Publication of regular columns in industry or trade journals

Status: On-going

Summary outcomes:

AQUAPLAN News are produced within the OCVO at least every quarter (there were 8 issues in 2001, and there are 5 issues in 2002 to date), distributed to stakeholders and placed onto the AFFA Website. More comprehensive AQUAPLAN Projects Updates are produced approximately three times a year and posted onto the AFFA Website.

Articles on specific AQUAPLAN projects have appeared in the *Australian Veterinary Journal*, *Fish Farming International*, the *Global Aquaculture Advocate*, the *NACA Newsletter*, the *Australian Maritime Digest*, the *FRDC Research and Development News* and the *Australian Prawn Farmer*.

There are also regular contributions to *Animal Health Australia's Animal Health Surveillance* quarterly brochures and the annual *Animal Health in Australia* reports (<http://www.aahc.com.au/communications/index.htm>).

The FRDC Aquatic Animal Health Subprogram was established in mid 2001. The first edition of its newsletter – *Health Highlights* – appeared in October 2001. Since then, quarterly issues are produced and distributed to stakeholders. They are also available from the Subprogram's website (<http://www.frdc.com.au/research/programs/aah/>).

Project 5.1.6. A Disease Hotline for use by industry and the general public

Status: Completed

Summary outcomes:

Telephone numbers for the 'Hot Lines' operated by each State/Territory were included in the Field Guide (see Project 5.1.1. above).

Project 5.2.1. Inclusion of aquatic animal health in veterinary curricula and other tertiary education

Status: On-going

Summary outcomes:

Prompted by the Australian Chief Veterinary Officer's

encouragement of *all* veterinary schools in Australia, Melbourne University Veterinary School has conducted an annual 'Fish Week' since 1998. In 2002, the University of Sydney Veterinary School arranged two lectures on fish health. Various workshops and courses are also offered by the University of Tasmania and the University of Queensland for vets and non-vets (see Project 5.1.4. above).

Project 5.2.2. Supporting self-education

Status: On-going

Summary outcomes:

AQUAVETPLAN manuals are available at no cost to all stakeholders.

An update and publication of the *Field Guide* on CD ROM is being considered by the FRDC Aquatic Animal Health Subprogram. The CD could be distributed free of charge to all graduating veterinary students (see Project 5.1.1. above). The Subprogram is also considering the production of an emergency management video as an aquatic animal health educational tool (see Project 5.1.3. above).

A CD-ROM will be produced as part of the exotic diseases training program to be conducted by the CSIRO Australian Animal Health Laboratory (AAHL) in Geelong, Victoria (see Project 5.2.3. below). This CD-ROM will be available as a resource to veterinary practitioners and pathologists.

Project 5.2.3. Post graduate training of veterinarians, aquatic animal health specialists and industry groups in the recognition of disease syndromes

Status: On-going

Summary outcomes:

An Aquatic Animal Health chapter of the Australian College of Veterinary Scientists was established in 2001. The first round of membership examinations was conducted in June 2002.

The University of Sydney's Post Graduate Foundation in Veterinary Science held a well-attended course on 'Aquaculture and Aquatic Animal Health' in April 2002.

OCVO staff will participate as instructors in a specialist Epidemiology Workshop to be held in



conjunction with the 5th Symposium on Diseases in Asian Aquaculture to be held in November 2002 on the Gold Coast in Australia.

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* has provided funding for the development of an aquatic animal *Exotic Disease Training Manual*. Another project funded this way is the development and conduct of an aquatic animal exotic disease training course to be held at AAHL. One output of the training course will be a CD-ROM which will be available as a resource to veterinary practitioners and pathologists. These projects have commenced and are to be completed by June 2004.

Project 5.3.1. Support linkages of Governmental services with Fisheries Departments liaison sections with industry

Status: On-going

Summary outcomes:

The simulation exercises in Tasmania, South Australia, Queensland and Victoria have provided opportunities for large numbers of industry representatives to meet with officers of the various State government departments. This process has resulted in the strengthening of relationships between industry and government and the initiation of a number of joint industry-government projects in the area of aquatic animal health e.g. the Macquarie Harbour Emergency Management Plan, and the Redclaw Crayfish Industry Health Plan.

Project 5.4.1. Registration and minor use permit approval for the use of drugs and chemicals in aquaculture

Status: On-going

Summary outcomes:

In late 2001, Crop Protection Approvals (CPA) Ltd. Research was commissioned by the FRDC to establish a national system for minor uses of livestock protection products in aquaculture and fisheries.

This project is designed to establish a system that will serve the ongoing needs of the aquaculture industries. Its objectives are: to establish a producer-driven system to meet the requirements of the various sectors of aquaculture for registered products; in consultation with industry bodies, to develop a blueprint for the system and establish frameworks for the ownership of data and permits and for the ongoing servicing and renewal of permits; and to develop and verify standard operating procedures for the conduct of GLP - compliant residue trials. Updates are provided on CPA's website (<http://www.cpaltd.com.au/fish/>).

Project 5.4.2. Encourage the development of programs to promote the safe, effective and minimal use of drugs and chemicals

Status: On-going

Summary outcomes:

A successful conclusion of Project 5.4.1 will allow the responsible use of drugs and chemicals in aquaculture. Legal access to drugs will allow their use under veterinary supervision and in a responsible way that does not result in harmful residues in marketed product or pollution of the environment.

The following projects were added at Annual AQUAPLAN Stakeholder Workshops:

Project 5.1.7. Professional communication of AQUAPLAN

Status: On-going

Summary outcomes:

Following on from previous communication avenues (see Projects 5.1.3 and 5.1.5 above), professional communication will be a key priority task for the newly suggested Aquatic Animal Health Consultative Committee (AAHC) and is incorporated into their business plan (see also Project 8.7. below). It will be a core duty of the AAHC Executive Officer to optimise external communications through development of a communication and extension plan.

Project 5.2.5. Succession planning, and sharing training materials

Status: On-going

Summary outcomes:

The Second National Fish Pathologists' Workshop 2002 noted that whilst there is a need for skilled aquatic animal health veterinarians in governments and the private sector, and whilst the current supply of adequately trained experts is poor, there is, on the other hand, only limited funding to create government positions for aquatic animal health experts and hence little justification to significantly expand undergraduate training courses. However, alternative options to provide training at undergraduate and postgraduate level should be explored. At the Workshop, a committee was established to further develop the options to address the shortfall in skilled aquatic animal health veterinarians. The committee will report back to the 2003 workshop.

An Aquatic Animal Health chapter of the Australian College of Veterinary Scientists has been established in 2001. The first round of membership examinations was conducted in June 2002.

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* has provided funding for the development of an aquatic animal *Exotic Disease Training Manual*. Another project funded this way is the development and conduct of an aquatic animal exotic disease training course to be held at AAHL. One output of the training course will be a CD-ROM which will be available as a resource to veterinary practitioners and pathologists. These projects have commenced and are to be completed by June 2004.

Summary

- Most projects within Program 5 are on-going activities. A range of educational programs is now in place for aquatic animal health but more work remains to be done by educational institutions and industry.
- Significantly more effort is required in the area of communication, and this will be a major focus for the new Aquatic Animal Health Consultative Committee AAHC.

Program 6 – Research and Development

Objectives

- To identify research priorities in the field of aquatic animal health and aquatic animal disease management.
- To promote research and development in these areas by industry and Government.

Project 6.1.1. Inventory of aquatic animal health research in Australia

Status: Completed

Summary outcomes:

A database of aquatic animal health research conducted in Australia has been prepared and is available on the AFFA website (<http://www.affa.gov>).

Follow-on activities:

The database is updated annually.

Project 6.1.2. Prioritisation of research needs by private sectors and Governments

Status: On-going

Summary outcomes:

As per an Agreement between the Commonwealth Department for Agriculture, Fisheries and Forestry (AFFA) and the Fisheries Research and Development Corporation (FRDC), funds available for aquatics under the *Building a National Approach to Animal and Plant Health* are administered by the FRDC on AFFA's behalf. The FRDC's vehicle for delivery is the FRDC Aquatic Animal Health Subprogram.

In April 2001, the Subprogram Leader approached over fifty industry stakeholder groups with a call for identification of diagnostic priorities for aquatic animal health. A pro-forma had previously been developed, assisting stakeholders in this process. A draft database on the currently available diagnostic capability for aquatic animal diseases in Australia was also provided. The call for priorities was copied to State and Territory governments and their Fisheries Research Advisory Bodies (FRABs) as well as other FRDC Subprograms. In June 2001, the Subprogram's Steering Committee and Scientific

Advisory Committee evaluated and shortlisted the nominations, developed a set of project specifications, and disseminated calls for expressions of interest widely and openly throughout Australia, including all known and potentially interested researchers, FRABs and the other FRDC Subprograms. Of the ten R&D applications, seven were progressed into FRDC Board-approved projects all of which are active at this stage. The first diagnostic techniques will be completed by the end of 2003.

In December 2001, governments and researchers as well as more than 60 key industry associations were asked to nominate priorities for programs 'Emergency Management Planning' and 'Emergency Management Training and Incident Simulation' under the Federal Budget Initiative *Building a*

National Approach to Animal and Plant Health program. By end of

January 2002, over twenty nominations had been received. The Subprogram's Steering Committee and Scientific Advisory Committee evaluated and shortlisted the nominations and sought expressions of interest from possible providers. Of

the nominated priorities, 16 progressed into FRDC Board-approved projects all of which are active at this stage.

Project 6.1.3. Development of a strategic research plan

Status: Completed

Summary outcomes:

One of the key tasks of the FRDC Aquatic Animal Health Subprogram (established in mid 2001) is to develop – in consultation with stakeholders – a strategic plan for aquatic animal health.

To kick-start the process of developing this plan, the Subprogram's Steering Committee and Scientific Advisory Committee held a one-day workshop with key stakeholders in April 2002. A draft plan – developed at the workshop – was circulated to a wider group of stakeholders for comment, revised, and resubmitted to stakeholders for final

endorsement. The plan is available on the Subprogram's website (<http://www.frdc.com.au/research/programs/aah/index.htm>).

Follow-on activities:

The plan has been developed for a five-year period (2002–2007) after which a full review will be conducted. The plan will also be updated annually.

Project 6.2.1. Prioritisation of research into import replacements

Status: On-going

Summary outcomes:

Each year, industries provide input into the establishment of the FRDC's research priorities, e.g. through participation in the FRAB process.

In addition, industries have also provided input into development of the strategic research plan (see Project 6.1.3. above).

Project 6.2.2. Aquatic disease management (to prevent disease)

Status: On-going

Summary outcomes:

As an output of simulation exercises conducted to date, staff from the Office of the Chief Veterinary Officer (OCVO) have assisted the abalone, redclaw and salmonid industries with the development of industry health or disease management plans. Conduct of industry days as part of each simulation exercise resulted in a large proportion of industry members participating in the development of these health plans.

Project 6.2.3. Development of new diagnostic tests

Status: On-going

Summary outcomes:

The development of Standard Diagnostic Techniques (SDTs) (see Project 3.1.4. above) includes the development of new tests where appropriate.



The following project was added at an Annual AQUAPLAN Stakeholder Workshop:

Project 6.2.4. Project Health R&D for infant industries and new aquaculture species

Status: On-going

Summary outcomes:



The scope of the FRDC Aquatic Animal Health Subprogram is 'health' with a focus on infectious diseases. In particular this Subprogram – which was established in mid 2001 – will manage health-related projects on new or emerging species ('orphan species').

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* has provided funding for the development of better diagnostic techniques for infections with *Vibrio* spp. and with nodaviruses, pathogens that affect a range of aquaculture species including several infant industries (e.g. striped trumpeter).

Summary

- Most projects within Program 6 are on-going activities. Responsibility for strategic research has been transferred to the FRDC Aquatic Animal Health Subprogram.

Program 7 – Legislation, Policies and Jurisdiction

Objectives

- To facilitate the implementation of surveillance and control strategies, and preparedness and response arrangements for aquatic animal diseases at the State and Territory level.
- To ensure that legislative and jurisdictional mechanisms are in place to effectively manage aquatic animal health in Australia.
- To establish National Policy Guidelines on the Translocation of Live Aquatic Organisms within Australia which provide means to better manage the risks associated with the introduction of aquatic pests and translocation of aquatic animals.

Project 7.1.1. Identify and work towards necessary legislative and jurisdictional outcomes

Status: On-going

Summary outcomes:

A draft report prepared by the then Standing Committee on Agriculture and Resource Management (SCARM) Taskforce on Uniform Agricultural Plant and Animal Health Legislation on the feasibility of a proposal for such legislation was submitted to the then Standing Committee on Fisheries and Aquaculture (SCFA) in February 2000, for information and comment if required. A cost benefit analysis of such legislation was submitted to the SCARM meeting held in August 2001. Subsequent efforts were focussed on ensuring that each jurisdiction had the appropriate legislative powers required for management of an emergency disease incident. The adequacy of this legislation was tested during the Australia-wide simulation exercise 'Exercise Minotaur'.



Project 7.1.2. Encourage the States and Territories to critically assess their existing systems regarding gaps, legal challenges, and extent of enforcement

Status: On-going

Summary outcomes:

Some simulation exercises (see Project 4.1.3. above) identified shortcomings in State legislation regarding the management of emergency disease incidents, for example, relating to the right of entry and the ability to search properties. The relevant jurisdictions are reviewing their legislation and are considering the action required to address these gaps. For example, the South Australian government recently included fish under that State's *Stock Act*, thus providing greater legal powers during an emergency incident.

Participants at the Second National Fish Pathologists' Workshop (June 2002) discussed the option of making diseases on the *National List of Reportable Diseases of Aquatic Animals* legally notifiable in each jurisdiction. This may make changes to the National List more cumbersome; however, it could be beneficial to fulfil overseas market access requirements. Each jurisdiction will explore potential gains *versus* logistics of making diseases on *National List* legally notifiable.

Project 7.1.3. Encourage States and Territories to adopt the generic principles and adjust their systems accordingly, to ensure agreed-upon outcomes

Status: On-going

Summary outcomes:

The process described under Project 7.1.1. has led to a review of emergency disease management legislation in each jurisdiction. Conduct of 'Exercise Minotaur' has provided an opportunity to assess the efficacy of legislation.

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* has provided funding for the design and organisation of a multi-state disease emergency simulation exercise for the

aquatic sector; this exercise, which suggests the Murray Darling Basin as a case study, will test the applicability of legislation to disease emergencies in fisheries and aquaculture.

Project 7.1.4. Legislation for normal activity (surveillance) as opposed to disease outbreaks

Status: On-going

Summary outcomes:

Individual States/Territories have varying levels of surveillance activity. For example, Tasmania has active surveillance programs for both salmon and oyster industries, and Western Australia has an active surveillance program for the pearling industries. Legislation covering surveillance is implemented by individual jurisdictions to address the specific needs of that jurisdiction and its constituent industries.

Project 7.1.5. Provide SCARM/SCFA with recommendations to improve reporting and management of aquatic animal disease outbreaks

Status: Completed

Summary outcomes:

A comprehensive briefing to Standing Committees in 2001 led to their endorsement of the review ('*post mortem*') into the response to the white spot virus (WSV) incident, and agreement to consider alterations to the Consultative Committee on Emergency Animal Diseases (CCEAD) Operating Guidelines. The final report and recommendations arising from the *post mortem* exercises were endorsed by CCEAD and by the Primary Industries Standing Committee (replacing SCARM and SCFA) in September 2002. See Project 4.1.2. above for details.

Follow-on activities:

Office of the Chief Veterinary Officer (OCVO) staff were successful in obtaining Federal Budget Initiative *Building a National Approach to Animal and Plant Health* funds for a project to enhance emergency disease management through the education and training of the CCEAD participants on the CCEAD process.

Project 7.2.1. Agree on a national approach to translocation of aquatic animals through SCFA and its subcommittees Aquaculture Committee and Environment and Health Committee

Status: Completed

Summary outcomes:

The *National Policy for the Translocation of Live Aquatic Organisms* was published in 1999 and was endorsed by all jurisdictions through the then Ministerial Council on Forestry, Fisheries and Aquaculture (MCFFA). States and Territories are at various stages of implementation of the National Policy.

Follow-on activities:

All jurisdictions agreed to develop state translocation policies that are consistent with the guidelines.

Project 7.2.2. Agree on a national approach to policy for the post quarantine management of imported fish and aquatic products

Status: On-going

Summary outcomes:

The involvement of imported prawns in the WSV incident in Darwin heightened the awareness of individual States/Territories for the need for post quarantine management of imported fish and aquatic products. This incident allowed several jurisdictions to determine whether their legislation was adequate to manage post-quarantine matters.

Some jurisdictions have legislation in place to manage post-quarantine issues.



Project 7.2.3. Implement the necessary changes to legislative arrangements, policies and regulations at the State / Territory government level

Status: On-going

Summary outcomes:

See Projects listed above. Individual jurisdictions are at various stages of implementation.

The following project was added at an Annual AQUAPLAN Stakeholder Workshop:

Project 7.2.4. Translocation of bait and other non-viable fish product

Status: On-going

Summary outcomes:

Biosecurity Australia is currently conducting a survey amongst recreational fishers to gather information on the movement and use of bait and berley. The survey results will be available in late 2002.

RecFish Australia's *National Code of Practice for Recreational and Sport Fishing 2001* (available from RecFish's website <http://www.recfishoz.com/>) requires:

- the return of live bait to waters from which it came
- the avoidance of imported product as bait
- not leaving unused bait at fishing sites

Summary

- Whilst some progress has been made in Program 7, substantially greater attention and coordination is required from individual jurisdictions to address the projects in this program. This will be a key area for the new Aquatic Animal Health Consultative Committee (AAHC).

Program 8 – Resources and Funding

Objectives

- To develop a cost-sharing arrangement between industry and Government which underpins the funding of emergency response mechanisms;
- To assess the resources required to support the implementation of projects necessary to maintain high standards of aquatic animal health management in Australia.

Project 8.1.1. Examine the Australian Animal Health Council funding structures for the terrestrial animal industries as a potential model to be applied to the aquatic animal industries

Status: Completed

Summary outcomes:

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* provided funding to retain a consultant to examine Animal Health Australia (AHA) – a not-for profit public company established by governments and livestock industries and formerly known as the Australian Animal Health Council – as a model for aquaculture industries. Through the use of a questionnaire and stakeholder meetings in each capital city, three AHA-related options were identified for the aquatic industry:

- Forming an AHA equivalent specifically for aquatic industries;
- Aquatic industries becoming individual members of AHA;
- Aquatic industries forming an AHA subsidiary.

At a final stakeholder meeting in August 2001, these options were rejected in favour of a low-cost alternative, that is, to reconstitute the Fish Health Management Committee (FHMC) as the Aquatic Animal Health Committee (AAHC), with revised Terms of Reference and a dedicated funding basis (see also Project 8.6. below).

A working group to review FHMC and recommend revised Terms of Reference etc was established at the August 2001 stakeholder meeting (see Project 8.7. below).

Project 8.2.1. Funding to Underpin Aquatic Animal Disease Emergency Preparedness and Response Arrangements (AQUAVETPLAN)

Status: On-going

Summary outcomes:

AQUAVETPLAN has received considerable impetus from the injection of the Federal Budget Initiative *Building a National Approach to Animal and Plant Health* program. See Projects under Program 4 above for details.

Further development of AQUAVETPLAN will rely on availability of funds.

Project 8.3.1. Continuing Funding to Support Disease Monitoring and Surveillance and Reporting Activities

Status: On-going

Summary outcomes:

A review of surveillance and monitoring for aquatic animal health in Australia recommended the establishment of an Australian Aquatic Animal Health Information Service (AAAHIS) to provide a centre for surveillance data storage and collation (see Projects 3.1.1. and 3.1.3. above). On industry advice, funding to establish AAAHIS was incorporated into the proposed budget for AAHC, however, this was not endorsed by the Primary Industries Standing Committee (PISC) in September 2002. It is now up to AAHC to determine whether the AAAHIS is to go ahead as planned with initial funding for the first 30 months of operation. Funding beyond that point in time will be linked to the future of AAHC and the mechanism for management of aquatic animal health within Australia.

Project 8.4.1. Encouraging the development of undergraduate and postgraduate veterinary and aquatic animal health training

Status: On-going

Summary outcomes:

This is an on-going activity that is addressed in detail in Projects 5.2.1. and 5.2.3. above.

Project 8.4.2. Codes of Practice in aquatic animal health management

Status: On-going

Summary outcomes:

Assistance has been provided to individual industries (abalone, salmonid, redclaw) in the preparation of industry health and/or emergency management plans (see Project 6.2.2. above).

Other industries – for example the Western Australia pearling industries – have developed Codes of Practice that include sections on animal health and disease management.

Project 8.4.3. Increased general public awareness of aquatic animal health issues, especially through the aquarium and recreational fishing industries

Status: On-going

Summary outcomes:

The survey of bait and berley usage being conducted by Biosecurity Australia has raised the general awareness of health issues amongst recreational fishers. The report is to be finalised by the end of 2002.

RecFish Australia's *National Code of Practice for Recreational and Sport Fishing 2001* (available from RecFish's website <http://www.recfishoz.com/>) includes sections on responsible bait usage and the reporting of dead aquatic animals or aquatic pests.

Awareness of fish health has also been raised in the recreational fishing industry through publication in 2002 of an educational article in 'Angler Action', the magazine of the Australian Angling Association.

The Pet Industry Joint Advisory Council of Australia Ltd (PIJAC) has developed a *Code of Practice for Aquariums* (available on the PIJAC website under <http://www.pijac.com.au/member/index.html>) which stipulates that

- "Members shall not offer for sale any aquatic animal that is known to be suffering from disease, illness or injury and shall seek proper advice as to the treatment of such aquatic animals in their care. In such cases, the aquatic animal should be placed in quarantine until treatment has been effected", and that

- "Any dead aquatic animal shall be disposed of in a manner that will not render the likelihood of any disease being released into natural waterways, e.g. in garbage used as landfill, and not via storm water. "

Some of the other recommendations, for example on animal welfare, also are relevant to aquatic animal health.

Project 8.5.1. Presentation of information by an aquaculture industry insurance expert

Status: Pending

Summary outcomes:

Initial consultations with insurance experts have been completed, and the issue has also been discussed in the Resources and Funding Consultancy (see Project 8.6. below). The project will need to be taken up by the AAHC as a priority issue.

Project 8.5.2. Separately address the issues of compensation versus major loss due to disease

Status: Pending

Summary outcomes:

These issues are briefly discussed in the Resources and Funding Consultancy (see Project 8.6. below). The project will need to be taken up by the AAHC as a priority issue.

The following projects were added at Annual AQUAPLAN Stakeholder Workshops:

Project 8.6. High-level consultancy (out of AFFA Federal Budget Initiative funds) to examine all aspects of resource and funding, including insurance and levies; joint industry/government bodies; industries' needs for/costings of discrete programs

Status: Completed

Summary outcomes:

The Federal Budget Initiative *Building a National Approach to Animal and Plant Health* provided funding to retain a consultant during 2001; the final report of the consultancy was published in early

2002 and is available from the Fisheries Research and Development Corporation as Report # 2000/601 'AQUAPLAN Resources and Funding Consultancy'.

Regarding a future joint industry/government body for aquatic animal health, the consultancy through extensive stakeholder consultation recommended the reconstitution of FHMC as the AAHC, with revised Terms of Reference and a dedicated funding basis (see also Project 8.1.1. above). A working group to review FHMC and recommend revised Terms of Reference etc. was established and reported back to FHMC in December 2001 (see Project 8.7. below).

The consultants were also to consider the role of insurance in compensating for loss due to disease and prescribed slaughter; they found that a clear framework for compensation arrangements in the event of a nationally significant disease outbreak in aquatic animals is required. They identified that current industry-government agreements do not include provision for government compensation during a disease outbreak in the aquatic animal sector. Access to private insurance has the potential to close this gap. However, for insurance to close this gap, a system would need to be established that facilitates early disease reporting and improves the capacity of insurers to assess the risks.

Follow-on activities:

The various follow-on activities are described in detail under 'Permanent consultative body' at the beginning of this brochure. They have led to the establishment of the AAHC.

Project 8.7 FHMC Working Group to review FHMC and make recommendations regarding a more effective implementation of AQUAPLAN.

Status: Completed

Summary outcomes:

A Working Group established by FHMC in August 2001 suggested the reconstitution of FHMC as a new body, the AAHC, with new Terms of Reference, and a dedicated funding basis. In November 2001, FHMC concurred with the Working Group's report that the new AAHC should report to PISC.

Follow-on activities:

The various follow-on activities are described in detail under 'Permanent consultative body' at the beginning of this brochure. They have led to the establishment of the AAHC.

Summary

- **Program 8 has been the most difficult AQUAPLAN Program to implement. Stakeholders have clearly identified their preference for a low cost option for the future management of aquatic animal health in Australia. For the first 2.5 years, AAHC core funding will be derived from governments only (50% Commonwealth; 50% States and the Northern Territory in aggregate), however, this core funding will not provide for actual projects.**
- **It is crucial for the effective and sustainable management of aquatic animal health jointly by governments and industry that a true tri-partite funding arrangement be developed by AAHC as a key priority, to enable industry contributions after 30 June 2005.**

