FINAL REPORT

aquatic animal health subprogram

Enhancing the emergency disease response capability of NSW and Qld Government agencies and industry bodies associated with oyster culture.

Matt Landos

March 2004

Project No. 2002/661

Australian Government
Department of Agriculture, Fisheries and Forestry

NSW FISHERIES

Australian Government
Fisheries Research and Development Corporation

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ISBN N^{o} 1 920812 04 0

The Fisheries Research and Development Corporation plans, invests in and manages fisheries research and development throughout Australia. It is a federal statutory authority jointly funded by the Australian Government and the fishing industry.

Printed by NSW Fisheries, Port Stephens Fisheries Centre, Private Bag 1, Nelson Bay, NSW, 2315. March 2004.

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TABLE OF CONTENTS

ACKNOWLEDGMENTS

The support of the Commonwealth Government through the granting of funds administered by the Fisheries Research and Development Corporation is gratefully acknowledged.

The involvement of Dr Iain East and Alistair Herfort, officers of the Office of the Chief Veterinary Officer within Department of Agriculture, Fisheries and Forestry (DAFF), in developing, writing and facilitating the exercise, was pivotal to the success of the project. The support of NSW Agriculture, EPA and Safefood is acknowledged. The Executive of NSW Fisheries and in particular, Dr Nick Rayns Executive Director Aquaculture and Sustainable Fisheries was appreciated. A major contribution to the success of the exercise was made by Cassandra Nelson of NSW Fisheries.

The exercise was well supported by both the Oyster Growers Association of NSW and the New South Wales Farmers Association – Oyster Section.

NON-TECHNICAL SUMMARY

2002/661 Enhancing the emergency disease response capability of NSW and Qld. Government agencies and industry bodies associated with oyster culture.

Principal Investigator: Matt Landos

Address: NSW Fisheries
Aquatic Animal Health Unit
Regional Veterinary Laboratory
Bruxner Highway
Wollongbar NSW 2477

Telephone: (02) 6626 1293
Facsimile: (02) 6626 1276

Objectives

1 To examine and test the skills and abilities of the participants in group problem solving and decision making skills.

2 To increase the participants' knowledge of the communication routes to be used in an emergency disease response by working through a scenario which mimics a real emergency situation.

3 To clearly define the roles within and between the various agencies involved and how they fit within the NSW DISPLAN and AQUAPLAN frameworks.

4 To improve the participants' ability to manage tasks by prioritising a number of competing demands during the operational phase of an emergency response.

5 To increase participants' understanding of the operational effects of specific requests to the State Disease Control Headquarters (SDCHQ).

6 To familiarise participants with operating practices on a typical oyster lease in the Hawkesbury.

7 To identify key areas for improvement in emergency management procedures across a range of subjects including planning, communication, staffing and resourcing.
8 Development of a response plan.

AQUAPLAN was generated as a National Strategic Plan for Aquatic Animal Health in recognition of the growing importance of protecting fisheries and aquaculture industries from disease. This project allowed NSW Fisheries to begin implementing one component of the National AQUAPLAN objectives, improving management of exotic disease outbreaks. Agriculture, Fisheries and Forestry Australia (AFFA) have assisted this process through staging disease simulation exercises in several States. This project was the first exercise of its kind to directly involve NSW Fisheries.

A fictional scenario called “Exercise Kilpatrick” was created to simulate an exotic oyster disease outbreak for the two day training exercise. The emergency response system on which the exercise was based, is compatible with that of the generic National AQUAPLAN approach and with the NSW State Disaster Plan (DISPLAN). The first day involved the formation of the State Disease Control Headquarters (SDCHQ) for training of NSW Fisheries management. The group were challenged to respond to a scenario involving the outbreak of a serious disease on a Hawkesbury River oyster farm. The second day of the exercise was a workshop, involving industry and field staff, assessing the practicalities of attempting to control/eradicate an oyster disease outbreak in an open waterway.

Nineteen NSW Fisheries staff (including senior management), three interstate government representatives, three interstate and two NSW industry representatives, and four staff from other NSW Government agencies participated in formation of the SDCHQ on day one of the exercise (“Exercise Kilpatrick”). The second day of the exercise involved nine industry representatives, eight NSW Fisheries field officers and several other NSW and interstate government representatives in a workshop assessing the practicalities of attempting to control a disease outbreak in an open waterway.

The group was presented with a scenario involving the outbreak of an infectious, exotic disease on a Hawkesbury River oyster farm. The scenario was written to encompass some of the complexities that would likely occur in a real outbreak situation. The group displayed the skills required to manage an emergency disease outbreak, provided access to resources from other agencies was forthcoming. Exercises on developing an overall response strategy, including assessment of spread, quarantine, surveillance and intra/ extra-departmental communication were completed by the participants. In particular, the channels of communication of information between: field staff; industry; media; general public and NSW Fisheries management were tested.

All NSW Fisheries participants were provided with position instructions, for their role within the SDCHQ structure, through pre-prepared job cards (designed by Dr Chris Baldock, AusVet -Appendix 1). The exercise provided material for staff to expand their knowledge of the processes of emergency disease management, and in particularly, the functioning of a SDCHQ. These job cards will now be refined, in light of recommendations flowing from the exercise, for inclusion in the NSW Fisheries Control Centre Manual. The emergency response system on which the exercise was

based, is compatible with that of the generic National AQUAPLAN approach and with the NSW State Disaster Plan (DISPLAN).

Input from industry representatives on both days provided a practical grounding for management staff on oyster farm logistics. This enabled modification of management plans in light of operating practices on a commercial oyster farm. Novel solutions for resourcing proposed eradication activities, were struck through co-operative agreement of industry to provide equipment and expertise for use in the government control program.

An internal report of the exercise has been drafted which includes 15 recommendations for the consideration of NSW Fisheries management. These measures represent an opportunity to further improve the capacity of NSW Fisheries to adequately and efficiently respond to aquatic disease emergencies.

Through the appraisal of both days of the exercise, the content of an information folder and brochure for farmers was designed (Appendix 3). This folder will incorporate more information on: the disease risks; what signs to look for; and what to do if a disease is suspected. A wall poster (Appendix 2) for oyster sheds is also nearly completed, which includes contacts for notification of suspected disease outbreaks. The exercise was a useful tool to raise awareness for improved passive surveillance of potential disease threats, by the oyster industry.

Through the exercise it was apparent, particularly with input from experienced NSW Agriculture staff, that all the skills and resources to handle a large scale disease outbreak were not present within NSW Fisheries. This reinforced the need for NSW Fisheries to become a signatory of DISPLAN. The development of a control centre manual for NSW Fisheries will incorporate the participation of the agency in DISPLAN.

The second day of the exercise assessed the practicalities of trying to eradicate an infectious disease from an open estuary environment. The overwhelming conclusion is that eradication of an infected population in an open estuary is not a practical reality and emergency disease response and management must be conducted with that reality in mind.

There was recognition by NSW Fisheries management that regular training exercises, like “Exercise Kilpatrick”, would be required to maintain expertise in emergency disease response within the agency.

Outcomes achieved to date

Public benefits: Prior to the exercise, job cards defining the roles and responsibilities of staff had been created and distributed to NSW Fisheries participants. NSW Fisheries staff received valuable hands-on training in emergency disease management principles and the opportunity to act within their job cards positions, within the SDCHQ. The format developed for emergency management was of a generic form, to allow application across to other aquaculture and wild fisheries in NSW.

Industry involvement throughout the project has assisted in expanded mutual understanding of issues associated with introduction and management of diseases

specific to the oyster industry. This information can now be used to develop improved government management processes. The simulation of an open water disease outbreak in oysters has considerable crossover to other open water fisheries industries, where the improved management response will also be accrued.
Integration of representatives from NSW Agriculture, Safefood and the EPA ensured that interests of all government agencies were represented. This will lead to improved efficiency in management of emergency disease events involving aquatic animals in NSW.

The overall improvement in management of disease outbreaks will directly improve the control of disease introduction and spread and reduce the risk of serious impacts on: the oyster industry; seafood market; seafood consumers; and status and diversity of wild stocks.

Private benefits: Attending oyster farmers were exposed to the processes of government run emergency disease management. This was effective in heightening their awareness of the threats posed by disease incursion and the consequences of disease control strategies. Improved disease reporting from farmers is an expected consequence extending into the future. Farmers are also expected to individually develop improved on farm biosecurity measures to minimise disease introduction risk. Outputs targeting improved farmer awareness and education will ensure this benefit has a lasting effect.

Industry response to project: The industry representatives were both enthusiastic and cooperative, offering constructive input throughout the development and running of the exercise. Industry groups will receive and disseminate the information package as one of the project outputs. This package contains training material and clear explanations of early warning signs and mechanisms for sample submission to improve disease surveillance and early detection across the oyster industry of NSW and Queensland. Industry representatives from Tasmania, Northern Territory and Western Australia were appreciative of the opportunity to participate in the exercise.

Agency response: NSW Fisheries executive supported the project and are in the process of incorporating the recommendations from the exercise into the development of the control centre manual for NSW Fisheries. Involvement of the conservation division of NSW Fisheries facilitated coverage of interests beyond those of the aquaculture industry. Principles taken from the exercise are also to be applied to developing marine pest management programs. NSW Fisheries is committed to formally joining the NSW Disaster Plan, to formalise its involvement with other agencies, providing NSW Fisheries with the resource base to adequately manage future aquatic emergencies.

KEYWORDS: **Aquatic animal emergency disease management, aquaculture, oyster, emergency disease response**.

Enhancing the emergency disease response capability of NSW and Qld Government agencies and industry bodies associated with oyster culture

BACKGROUND

In recent history numerous wild fisheries and aquaculture industries worldwide have suffered major economic and production losses through the impact of disease epidemics. Australia has avoided some of these epidemics to date, however the major pilchard kill in 1995 and White-spot syndrome virus (WSSV) scare in 2001 have highlighted the real risk of major disease events in this country. Through the development of AQUAPLAN the Federal Government generated a National Strategic Plan for Aquatic Animal Health in recognition of the growing importance of protecting fisheries and aquaculture industries from disease. AQUAPLAN is a comprehensive document describing intiatives ranging from border controls and import certification through to enhanced veterinary education and improved capacity to manage incursions of exotic diseases. This project was the first exercise of its kind to directly involve NSW Fisheries and sought to improve the emergency disease response capability of the agency in line with the objectives of Program 4 of AQUAPLAN.
Within this program, project 4.1.3 involves the staging of simulation exercises to test the capability and capacity of Australia's State/Territory agencies. The conduct of these exercises was ranked as a high priority by the Aquatic Animal Health Subprogram's Steering Committee and Scientific advisory Committee. The Federal Government further recognised the need for further capacity building and through an initiative: "Building a National Approach to Animal an Plant Health" made some funds available for these exercises. Before this project no simulation exercises had been run in NSW. The exercise involved NSW Fisheries, NSW Agriculture, Safefood and industry representatives from NSW, Qld, Tas, SA, WA and NT. An open offer to attend as observers was extended to Government and industry representatives from Western Australia, Victoria, South Australia, Northern Territory and Tasmania. This has been the first step in developing the capacity to respond to aquatic emergencies within NSW and add nationally to the outcomes of AQUAPLAN.

NEED

1. Both government and industries have relatively little experience with real aquatic disease emergencies.
2. Currently within NSW there is no cohesive management strategy setting out the roles and responsibilities of individuals and agencies involved. NSW Fisheries and NSW Agriculture are jointly examining ways of applying the NSW disaster plan to cover aquatic emergencies.
3. The limited number of previous disease emergencies has led to some industry complacency about the risks of disease introduction and the potentially devastating effects.
4. A lack of experience amongst the agencies that have jurisdiction over the management of aquatic animals may lead to a delayed or inadequate response to a disease emergency. This delay may allow greater spread of disease, loss of Australia's disease free trading status and potentially disastrous effects on wild fisheries and ecosystems.

OBJECTIVES

1. To examine and test the skills and abilities of the participants in group problem

solving and decision making skills.

2. To increase the participants' knowledge of the communication routes to be used in an emergency disease response by working through a scenario which mimics a real emergency situation. To clearly define the roles within and between the various agencies involved and how they fit within the NSW DISPLAN and AQUAPLAN frameworks.

3. To improve the participants' ability to manage tasks by prioritising a number of competing demands during the operational phase of an emergency response.

4. To increase participants' understanding of the operational effects of specific requests to the State Disease Control Headquarters (SDCHQ).

5. To familiarise participants with operating practices on a typical oyster lease in the Hawkesbury

6. To identify key areas for improvement in emergency management procedures across a range of subjects including planning, communication, staffing and resourcing.

7. Development of a response plan.

METHODS

A workshop hosted by NSW Agriculture was the first training exercise to introduce NSW Fisheries staff to the principles of emergency disease response. Through this workshop explanation of the functioning of the DISPLAN was provided. Ausvet consultancy developed job cards to define the roles and responsibilities of positions on the SDCHQ. These were circulated to staff prior to the exercise to allow them to become familiar with what their role would be in an exercise. *(Objective 2)*

On the 30th April and the 1st May, NSW Fisheries participated in the simulation exercise to examine how effectively they can manage a disease outbreak in the Sydney rock oyster industry. The Exercise was entitled Exercise Kilpatrick.

Lead in phase
This phase involved email communications and fictional sample collection, which tested the reporting channels from the field, to the laboratory and to management.

Exercise day one
This day of the exercise examined the operation of a SDCHQ and was held at the Cronulla Fisheries Centre of NSW Fisheries. Senior Management of the Department combined with animal health experts to plan the response to an outbreak of "oyster blight" on an oyster lease in the Hawkesbury River. During the day a range of issues were examined including:
- developing the overall response strategy,
- preventing the spread of the disease through quarantine and movement controls,
- developing surveillance strategies, and
- establishing communication channels with the industry, media and the general public.

(Objective 1,2,3,4)

Exercise day two

The second day of the exercise took place at Mooney Mooney on the Hawkesbury River, one of the larger oyster farming estuaries in NSW. Oyster farmers, fisheries officers and NSW Fisheries Managers teamed together to address operational issues associated with the detection of, and response to the fictitious outbreak. *(Objective 5)* Review of the exercise provided information allowing better response to emergencies involving aquatic disease and highlighted the problems associated with disease control in an industry where farmed stock exists in close proximity to wild stock and where movement of water borne pathogens cannot be prevented. This information has been incorporated into recommendations in this report and will be included in the control centre manual development *(Objective 6,7).*

RESULTS

Objective 1

The exercise demonstrated that NSW Fisheries has a core of expertise available to manage an emergency disease outbreak..

Objective 2

The DISPLAN training day, two day simulation exercise with use of job cards was effective in explaining communication networks to be used within a SDCHQ and betgween cooperating agencies.

Objective 3

The exercise deliberately flooded participants with a myriad of tasks that necessitated prioritisation. It focused participants on their core roles in the SDCHQ as defined by their job cards.

Objective 4

During the exercise requests were fed into the SDCHQ that tested the participants familiarity with the operational roles they were undertaking in the exercise. Debriefing sessions helped explain the operational effects that were taking place on the day.

Objective 5

The involvement of up to ten oyster farmers, throughout the exercise, provided expert advice on how successful management decisions were likely to be, once implemented on the farms. They provided accurate technical information, which assisted other participants in understanding the scope of management difficulties on a diseased oyster lease.

Objective 6

This report details 15 recommendations for NSW Fisheries to consider. A report from exercise facilitators (Dr Iain East and Alistair Herfort) also incorporated a range of recommendations for improvements that could be made by NSW Fisheries to enhance its emergency disease response. The NSW Fisheries Biosecurity Manager will carry the responsibility for implementation of recommendations approved by the NSW Fisheries executive.

Objective 7

Funding for the writing of the control centre manual has been obtained and information for the manual is being compiled. This manual will outline the generic response plan for aquatic disease emergencies in NSW.

DISCUSSION

General

All participants of the simulation exercise found it to be a useful method of introducing the principles of emergency disease management to staff of NSW Fisheries, industry representatives and other government agency representatives. There was a recognition that similar exercises in the future would be needed to maintain awareness of emergency management procedures and disease threats for both government and industry.

During the exercise, NSW Fisheries managers focused particularly on disease eradication. The participation of Graeme Eggleston and Kevin Cooper of NSW Agriculture highlighted the need to address broader issues of emergency management beyond disease eradication for a successful outcome. To achieve this desired outcome, signing on to the NSW Disaster Plan and subsequently obtaining access to an array of specialist services from a range of government departments, especially NSW Agriculture, emerged as clear priority.

Early in the development of the exercise it became obvious that the response capacity of NSW Fisheries to an emergency epizootic event of this scale was very limited. NSW Fisheries does not possess the resources or the breadth of skills required to handle all aspects of a major emergency disease response. The exercise was therefore run under the assumption that NSW Fisheries did have access to the resources through the provisions of the NSW DISPLAN.

Communications Issues - Internal

Recommendation 1
NSW Fisheries should urgently move towards becoming a signatory on the NSW Disaster Plan to facilitate access to resources and skills of other signatory agencies.

<u>Lead in phase</u>

The response of NSW Fisheries management to the report of a mass oyster mortality in Patonga Creek was prompt and measured. Email communication from the bottom up was good. It is necessary to ensure that regular updates come back from head management so that the staff in the field are aware of the actions underway. Daily intranet updates were suggested as a means to inform staff.

<u>Exercise day one</u>

The first session at the SDCHQ was to be based around the action list generated from the incident management team (IMT) meeting. Much of the discussion during this session centred on the most interesting technical issues, leaving some of the points on the action list unattended. There was insufficient discussion on logistics and operational issues. The other effect was that not all persons in the SDCHQ were

briefed on the latest situation with the outbreak, leaving members under-prepared to enter the next phase of the response. The technical aspects of the management response need to be seen as just one of several essential components to achieve a successful management of an emergency disease outbreak. This was the first occasion staff had been asked to work just within their job card scope. The staging of this first meeting will be made easier if staff adhere rigidly to the list of tasks on their job card and they do not attempt to work in other areas. Further training in this area would be of assistance.

Recommendation 2
During SDCHQ apply time frames to items on the IMT action list to ensure that all the issues including logistics, operational and social issues are covered from the outset. Utilise services of SDCHQ Director's administrative support to ensure timetable is adhered to during high pressure meetings. Review job cards for SDCHQ positions, in consultation with the relevant staff member from the exercise, to ensure they are clear in their directions, prior to inclusion in the control centre manual.

Information transfer between field staff and management groups is critical for an efficient response. On at least one occasion a key detail from a site report did not get transmitted back to the SDCHQ director.

Recommendation 3
Preparation of "emergency event" email lists and tagging emails to ensure the receiver responds when the document is opened are options to ensure information is distributed to all who need to become aware of it.

Each emergency response activity needs to be properly documented so that subsequent review is able to identify areas where improvement can be made. Documenting the time, place and responsible officer for operational/technical decisions is a critical part of an auditable response program.

Recommendation 4
Formal decision making paperwork is required to ensure all decisions are signed off on and a trail of accountability is made. Utilise NSW Police forms as a template.

Exercise day two

The role of NSW Fisheries field officers in an emergency disease event was not clearly defined. The exercise did not aim to develop a Local Disease Control Centre (LDCC) response, however from the industry day events touched on some LDCC activities. Job cards for positions on the LDCC would be beneficial for clear understanding of staff responsibilities.

Recommendation 5
Prepare a job card for Fisheries Officers and LDCC positions, detailing the extent of their involvement in the emergency response, and the command structure.

Communications Issues - External

Exercise day one

Graeme Eggleston and Kevin Cooper (NSW Agriculture), experienced in real emergency disease outbreaks, suggested that some emphasis needed to be placed on advising the public of the intent, scope and gravity of the emergency situations. Staging local information sessions from the outset of the quarantine of premises is a helpful adjunct to mainstream media releases. Industry representatives requested an opportunity to provide input to media releases prior to them going out.

Recommendation 6
Ensure media component of local disease control centre prepares and delivers public information from the outset of the exercise and continues to provide updates throughout the campaign.

Communication of the campaign progress to all affected farmers is essential to attain compliance with recommendations. Development of area based farmer contact lists would assist in ensuring total farmer coverage. This list could then be used as a tool to distribute situation updates. To maintain public support for a prolonged eradication program, it is critical to keep the public and industry members informed on whether the program is effecting the required control.

Recommendation 7
Develop area based lists of industry participants with complete contact details.

Stand-down phase of exercise critical to overall success of exercise in "returning community to normality". The social costs of these outbreaks should be recognised and adequate provision of counseling to members of staff and the public. It is during this phase where earlier problems relating to OH&S issues, overtime, flextime and employee relations issues can become exposed.

Recommendation 8
Liase with NSW Agriculture to commence formulating OH&S field work and employee relations details so they might be clearly defined before they need to be functional in a real event.

Exercise day two

Industry identified the sources of information they would most likely seek to remain updated on the outbreak. The consensus was that information flyers would need to be developed for local distribution to local newsagents and through the facsimile QAP system. Information flow of decisions from LDCC regarding permits for movements should be proactively circulated to farmers to keep them informed.

Recommendation 9
Ensure media communications include development of information flyers for distribution in local centres adjacent the affected areas.

Industry Involvement Issues

Exercise day one

Trace back and surveillance activities are only as accurate as the information they are based on. In this exercise the trace back of oyster movements was heavily reliant on oyster farmers diligently keeping up to date movement records. Farmer representatives suggested this was not always likely to be the case. To assist in hastening the acquisition of movement information it was suggested that an industry representative should be recruited early in the process to assist control centre field staff in the rapid acquisition of movement data.

Recommendation 10
Utilise local industry representatives to assist in rapid information gathering, for the purposes of traceback and surveillance.

Accurate assessment of stock numbers is essential before any destruction and disinfection procedures are commenced. The use of digital cameras can assist in this process, should compensation later become an issue. This information requires a formalised recording structure.

Recommendation 11
If eradication program decided on, then it should be required that all stock must be documented before removal from site. Use of GPS and digital camera ideal.

Industry participation from earliest decisions on quarantine at time of SDCHQ formation is critical. In the exercise the early quarantine area was only Patonga Creek, this was later expanded to the entire Hawkesbury. Interestingly industry suggested they would have been happy to place the entire Hawkesbury under quarantine from the outset if it meant reducing the risk of spread of a serious disease condition. There are several benefits in not focusing the investigation on too small an area. A large quarantine zone is likely to provide enhanced surveillance over a wider area and speed the understanding of the distribution/propagation of the disease agent.

Recommendation 12
Ensure industry participation in quarantine decisions as the industry may be willing to voluntarily place a more severe quarantine restriction on its' members than recommended by the technical management group.

Farmer compliance with a stock destruction program will always be a difficult area in the controlling of major disease outbreaks. Industry representatives suggested that a pre-defined compensation arrangement would provide the industry with a firm footing to negotiate suitable control measures in a real emergency situation. Three distinct areas of the compensation issue were raised: stock loss, income loss and use of farmer resources in the campaign (eg boats, cranes).

Recommendation 13
Discuss cost-sharing agreement with industry for costs incurred to control emergency disease events and compensation coverage.

<u>Exercise day two</u>

Techniques for identification and collection of samples for disease investigation were not well understood by farmers and NSW Fisheries Officers. The Quality Assurance Program sampling regime is the only sampling system most farmers have had exposure with. This is not the most appropriate system for disease investigation. Industry representatives suggested the most convenient method for the shipment of samples to the laboratory would be to coordinate it through their local fisheries office. Access to packaging information is not readily available to field officers.

Recommendation 14
A clear instruction package for identification, collection, preservation and transportation of suspect oysters for laboratory diagnosis was required to train farmers and NSW Fisheries coastal officers. . Provide offices with a supply of materials for this specific purpose. Circulate packaging details on NSW Fisheries website for reference.

Most industry representatives admitted that low grade to moderate mortalities incidents were unlikely to be reported to anyone, due to the common nature of this type of event in routine oyster farming. This accepting attitude to minor to moderate outbreaks is likely to result in critical delays in investigating potentially epizootic events. Many farmers did not appreciate the advances in diagnostics or the principles of disease investigations and had been reluctant to submit samples without getting useful results back. Addressing these two areas will improve response to disease outbreaks.

Recommendation 15
An education campaign is required for oyster farmers to raise awareness on what can be done to investigate mortalities and encourage rapid submission of samples.

BENEFITS AND ADOPTION

Public benefits: NSW Fisheries staff received valuable hands-on training in emergency disease management principles and familiarity with their job cards for positions within the SDCHQ. Integration of representatives from NSW Agriculture, Safefood and the EPA ensured that interests of all government agencies, who would likely participate in a real outbreak, were represented. This will lead to improved management of emergency disease events involving aquatic animals in NSW. The industry interaction in development of government management processes throughout the exercise has led to expanded mutual understanding of issues associated with introduction an management of diseases specific to the oyster industry. The format developed for emergency management was of a generic form, to allow application across to other aquaculture and wild fisheries in NSW. The improved efficiency of NSW Fisheries' ability to detect and manage disease events has a National benefit for maintenance of trading status through demonstrable animal health programs. Improved control of disease introduction and spread, reduce the risk of serious impacts on the oyster industry, seafood market, seafood consumers and conservation of diversity of wild stocks.

Private benefits: Attending oyster farmers were exposed to the processes of government run emergency disease management. This was effective in heightening their awareness of the threats posed by disease incursion and the consequences of disease control strategies. Improved disease reporting from farmers is an expected consequence extending into the future. Farmers are also expected to individually develop improved on farm biosecurity measures to minimise disease introduction risk.

FURTHER DEVELOPMENT

NSW Fisheries Biosecurity manager will be implementing the recommendations from this project that are agreed by the NSW Fisheries executive. The Biosecurity manager will also develop the control centre manual with reference to recommendations from this project.

There are two remaining areas of work to complete, which flow on from the results of this project:

(a) Incorporate the recommendations of this final report into the development of the control centre manual.
(b) Formalise the engagement of NSW Fisheries into the NSW State Disaster Plan.

PLANNED OUTCOMES

Planned outcomes achieved to date:

1. Improved speed of identification and reporting of disease events in the oyster industry is expected, due to raised awareness throughout the industry Australia-wide. Understanding of the implications of a major disease outbreak and a clear instruction folder/poster for how to take action will reinforce the importance of vigilant farmer observation and reporting. The keen involvement of industry members in both days of the exercise facilitated information transfer to the farmers. These outcomes will benefit the oyster industry through recognition of the impacts of disease and the adoption of practices designed to minimise the risk of disease incursion and spread. Protection from disease incursion will maintain levels of productivity and retain the trade advantages which disease freedom currently allow.

2. Improved efficacy and speed of the response for control and eradication of emergency disease outbreaks in NSW aquaculture industries, borne from the creation of clear management structures within the department and hands-on experience during the simulated emergency disease event. Through the development of the simulation exercise NSW Fisheries was able to create the structure for a SDCHQ and nominate staff to appropriate roles within this centre. The creation of a control centre manual will incorporate the recommendations that have arisen from this simulation exercise project and further lay out the mode of action for response to emergency disease events.

3. The integration of NSW Fisheries into the NSW State Disaster Plan (DISPLAN) was clearly demonstrated through the exercise to be a desirable interaction. In becoming a signatory to this plan NSW Fisheries will be able to further secure interagency cooperation during emergency disease outbreaks.

4. A spreadsheet delegating staff to control centre positions, for emergency disease response, will ensure maintenance of response capacity. Staff will be issued with their relevant job card for reference to their level of involvement. This ensures that the capacity building, which has resulted from this project, will not be lost over time. This outcome will benefit aquaculture, recreational and commercial fisheries sectors due to the generic nature of the skills being

developed within NSW Fisheries and NSW Agriculture, irrespective of the species of aquatic animal involved. This improved response capacity will ensure NSW Fisheries is better able to fulfil its role of protection and enhancement of fisheries resources in the State. It will also ensure that the managerial structures developed internally, readily harmonise with the National AQUAPLAN approach if required to assist in inter-state or national emergency responses.

These planned outcomes meet the needs of NSW Fisheries, which requested and supported this exercise.

CONCLUSION

The project has been successful in enhancing the capacity of NSW Fisheries to respond to emergency aquatic disease outbreaks. The majority of objectives have been met. The exercise highlighted the importance of quarantine and movement controls in the management and prevention of disease incursions. The familiarisation of NSW Fisheries and the oyster industry with the generic format of AQUAPLAN, will further bolster Australia's ability to manage its aquatic resources, in the face of ongoing disease threats.

STAFF

NSW Fisheries

Mr Matt Landos
Ms Cassandra Nelson
Dr Richard Callinan
Mr Damian Ogburn

Agriculture, Fisheries and Forestry Australia

Dr Iain East
Mr Alistair Herfort

Ausvet – Animal Health Services

Dr Chris Baldock
Mr Evan Sargeant

Farmers

Alan Ferguson
Roger Clarke
Peter Johnson
Rob Moxham
John Stubbs
Anthony Sciacca
Jim Croucher
Kel Henry
Noel Baggaley
Jane Clout

NSW Farmers Association (Oyster section)

Rachel King

SA Government
Colin Johnston
QDPI
John Dexter

NT Government
Murray Barton

NT/WA Pearl Farmers Representative
Chris Cleveland

Tasmanian Oyster Industry Representative
Barry Ryan

APPENDIX 1
Job cards

APPENDIX 2
Poster - “Don’t wait- investigate, Help stop oyster disease”

APPENDIX 3
Brochure - “Collecting, preserving and packing oysters for disease testing.”

APPENDIX 4
Folder – “Aquatic Animal Disease Response Package”