FINAL REPORT

aquatic animal health subprogram

Aquatic Animal Health Subprogram: enhancing the emergency disease response capability of the Western Australian Department of Fisheries and Industry bodies associated with non-maxima oyster culture

Brian Jones

March 2004

FRDC Project No. 2002/668

Australian Government
Department of Agriculture, Fisheries and Forestry

Government of Western Australia
Department of Fisheries

Fish for the future

Australian Government
Fisheries Research and Development Corporation

Authors: Brian Jones, Richard Knox, Simon Bennison, Iain East and Iska Sampson.

Title: Aquatic Animal Health Subprogram: enhancing the emergency disease response capability of the Western Australian Department of Fisheries and Industry bodies associated with non-maxima oyster culture.

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Glossary of acronyms

ABG	FRDC Aquatic Animal Health sub-program Aquaculture Business Group
AFFA	Agriculture Fisheries and Forestry Australia
AMWING	Trade name of the AMWING Pearl Producers Association Inc.
CEO	Chief Executive Officer
CVO	Chief Veterinary Officer (State position)
DBIF	Development and Better Interests Fund
DFMS	Director, Fisheries Management Services (Department of Fisheries)
ED	Executive Director (Department of Fisheries)
FRDC	Fisheries Research and Development Corporation
IC	Incident coordinator (Department of Fisheries)
LDCC	Local Disease Control Centre
OCVO	Office of the Chief Veterinary Officer (Federal Government position)
SAC	Aquatic Animal Health sub-program Scientific Advisory Committee
SDCHQ	State disease control headquarters
SECG	State Emergency Coordination Group
WA	Western Australia

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Project investigators

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2002/668 Aquatic Animal Health Subprogram: Enhancing the emergency disease response capability of Department of Fisheries and Industry bodies associated with non-maxima oyster culture

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Objectives

1 To examine and test the skills and abilities of the participants in group problem solving and decision making skills relating to emergency response procedures.

2 To increase participants knowledge of 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 WA Emergency plan and AQUAPLAN frameworks.

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

5 To increase participants understanding of the operational procedures in the Disease Emergency Response.

6 To familiarise participants with operational practices on a typical non-maxima oyster lease.

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

8 To document an emergency response plan that can be implemented by industry stakeholders.

9 To familiarise AFFA staff with the problems inherent in managing disease in a remote location.

Non-technical *summary*

A two day disease emergency response workshop was held at Geraldton, Western Australia, in October 2002. The objective of the exercise was to test the industry and government response to a disease emergency among non-maxima pearl farms at the Abrolhos Islands. The exercise was coordinated by staff from the Commonwealth Department of Agriculture, Fisheries and Forestry Australia and involved regional and head office staff from the Western Australian Departments of Fisheries and Agriculture as well as industry representatives. During the two day exercise the participants worked through emergency scenarios as well as having to respond to unexpected obstacles proposed by the exercise coordinators.

The outcome of the exercise was the education of the participants in the operational procedures involved

in a disease emergency response at the State level, an evaluation of the response with suggestions for improvements in emergency management planning, the documentation of an emergency management plan and input into the new Environmental Code of Practice for the industry.

Outcomes achieved

Outcomes of the exercise which were identified include:

1. A proportion of the Department of Fisheries staff were not aware of the levels of management involved in the response to a disease emergency within Western Australia or the legislation under which emergency disease incidents are managed. Consideration should be given to providing staff with further information on these processes.
2. The Western Australian Department of Agriculture has a scheme under which emergencies are classified on a scale of 1-4 in terms of their impact/importance. This classification determines the level of resources that are available to address the emergency. Such a scheme could be adopted by the Department of Fisheries to classify their emergencies.
3. There is a lack of consistent terminology between AUSVETPLAN, AQUAVETPLAN and other documents. This was highlighted by the use of the term "Dangerous Contact Premises". Consideration should be given to ensuring consistent terminology is used in all emergency plans.
4. It was suggested that the Commonwealth Department of Agriculture, Fisheries and Forestry take a lead role in considering a scheme whereby diseases of national importance are ranked according to their likely impact on Australian aquaculture and fisheries. This would provide States/Territories with a guide to the level of effort and resources that should be committed to controlling/eradicating the various nationally notifiable diseases.
5. A consistent flow of detailed information to industry is essential to explain the actions of the emergency response team and thereby encourage compliance with LDCC actions and decisions.
6. A range of existing technologies and methods exist that can be applied to emergency response activities. The rock lobster industry already cleans their boat hulls by the process of "chlorine tarping" and this could readily be applied to disinfecting boats working in a disease event. Similarly, sonar buoys are currently used to monitor vessel movements and could be used to monitor movements in restricted areas.
7. Local/regional emergency management committees exist within Western Australia and these would be activated early in the disease emergency. These are the channels through which inter-agency cooperation would be established. The role of these committees in emergency disease management should be clarified, documented and readily available to all personnel involved in the emergency response.
8. It may be necessary to obtain emergency use permits for the use of disinfection chemicals, such as chlorine and hydrogen peroxide. The preliminary paperwork that may be required to develop, or coordinate the development of these applications and their submission to the Australian Pesticides and Veterinary Medicines Authority could be developed beforehand, perhaps as an adjunct to the Disinfection Manual being developed by AFFA under AQUAPLAN.
9. The oyster industry is a unique aquaculture industry in that it produces a product that can be sterilised and subsequently marketed even when the pearl is removed from diseased shell during an emergency disease response. Where compensation is an issue, provision needs

to be made in any emergency plans for the recovery of pearls and shell and their subsequent sterilization prior to marketing. Specialist valuers with knowledge of the jewellery industry may be needed to assess adequately the salvage value of pearls and the value of seeded shell that is destroyed during disease emergencies.

10. The AMWING Pearl Producers Association have been able to incorporate the outcomes from this project into their Environmental Code of Practice which has been completed as part of the Eco-Efficiency Project between AMWING, Aquaculture Council of WA and Environment Australia. The outcomes will also be incorporated into the Environmental Management System Framework being developed as part of this initiative.

Keywords:

Non-maxima Pearling, Amwing, Aquaculture, Emergency Management, Disease.

Acknowledgements

The authors would like to thank Don and Julie Woodcock for their hard work and hospitality in arranging transportation and ensuring that the familiarization trip to the Abrolhos Islands was successful. We would also like to thank Pia Boschetti for providing transport at the Islands.

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, but the pilchard mortalities in 1995 and 1998 and the shrimp white spot incident in 2001 have highlighted the real risk of major disease events in this country.

Through the development of AQUAPLAN the Federal government has sought to improve the emergency disease response capability. An outcome of Program 4 of the plan is to seek to develop effective institutional arrangements to manage disease emergencies. Within this program, project 4.1.3 involves the staging of simulation exercises to test the capability and capacity of Australia's state and territory agencies. Both the Aquatic Animal Health Subprogram Business Group (ABG) and the Scientific Advisory Committee (SAC) have ranked the conduct of these exercises as a high priority.

The Federal government has recognised the need for further capacity building and through an initiative "Building a national approach to Animal and Plant Health" made some funds available for these exercises. Prior to the development of this proposal (FRDC 2002/668) none of the exercises had been held in Western Australia and none of the exercises had involved a non-food remote access product.

The exercise was designed to involve Department of Fisheries WA, Industry and to be open to representatives from other states and territories. It was also designed to be the first step in involving the non-maxima pearling industry in emergency planning and thus add nationally to the outcomes of AQUAPLAN.

Need

Relatively few major disease events have occurred within the WA aquaculture industries and as a result, there has not been an opportunity for an integrated multi-agency approach to disease management, though one has been developed on paper. To date, emergencies have been dealt with on an ad-hoc basis and no large-scale containment or eradication programs have been undertaken with respect to aquatic animal diseases. The Department has also been fortunate in that the remote and isolated nature of most of WA has not seriously affected response to the limited emergencies so far experienced, though considerable difficulties were experienced in collecting samples during the 2001 national shrimp white spot virus survey.

It follows that relatively little experience in handling such emergencies currently exists within the Department of Fisheries, Government of Western Australia. Simulation exercises provide a practical method of exposing and training staff in the management of aquatic disease emergencies.

The need can be summarized as follows:

1. Both government and industries have limited experience with real emergencies.
2. Though there is a cohesive management strategy setting out the roles and responsibilities of individuals and agencies involved, it is untested.

3. The limited number of emergencies has led to industry and agency complacency about the risks of disease introduction and the potential effects.

4. The linkages between the state departments of Agriculture and Fisheries and industry have not been tested. This may allow greater spread of the disease, loss of Australia's disease free trading status and potentially disastrous effects on aquatic ecosystems.

The non-maxima pearling industry and the Aquaculture Council of Western Australia provided letters of support for the exercise. Members participated in the development of this project and in the exercise itself. Selected Government agency staff also attended.

Objectives

1 To examine and test the skills and abilities of the participants in group problem solving and decision making skills relating to emergency response procedures.

2 To increase participants knowledge of 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 WA Emergency plan and AQUAPLAN frameworks.

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

5 To increase participants understanding of the operational procedures in the Disease Emergency Response.

6 To familiarize participants with operational practices on a typical non-maxima oyster lease.

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

8 To document an emergency response plan that can be implemented by industry stakeholders.

9 To familiarize Agriculture Fisheries and Forestry Australia staff with the problems inherent in managing disease in a remote location.

Methods

The exercise was based on the emergency management framework encapsulated in the AQUAVETPLAN Control Centre manual, but which is also used by other State Emergency Services. The reporting structure is outlined in Figure 1. The exercise was designed to mimic the commencement of the operational phase of a disease emergency event after the diagnostic team had confirmed the emergency and was conducted in two parts:

Day 1 Command post exercise – State Disease Control Headquarters

The participants operate within a single room and are required to use only the facilities and resources within the room and conduct an operational phase of the response to a confirmed disease incursion. The entire exercise is pre-scripted by the controlling staff.

The Office of the Chief Veterinary Officer (OCVO) collaborated with the principal investigator to plan the contingencies for the day. The participants were expected to react to a given scenario and prepare detailed action plans. The plans were then presented and defended during a debriefing session. The success of the exercise was determined by the appropriateness of the proposed solution to the problem as presented. Success was further measured by comparison of the solutions produced during the exercise with the detailed response plans described in the AQUAVETPLAN Control Center Manual.

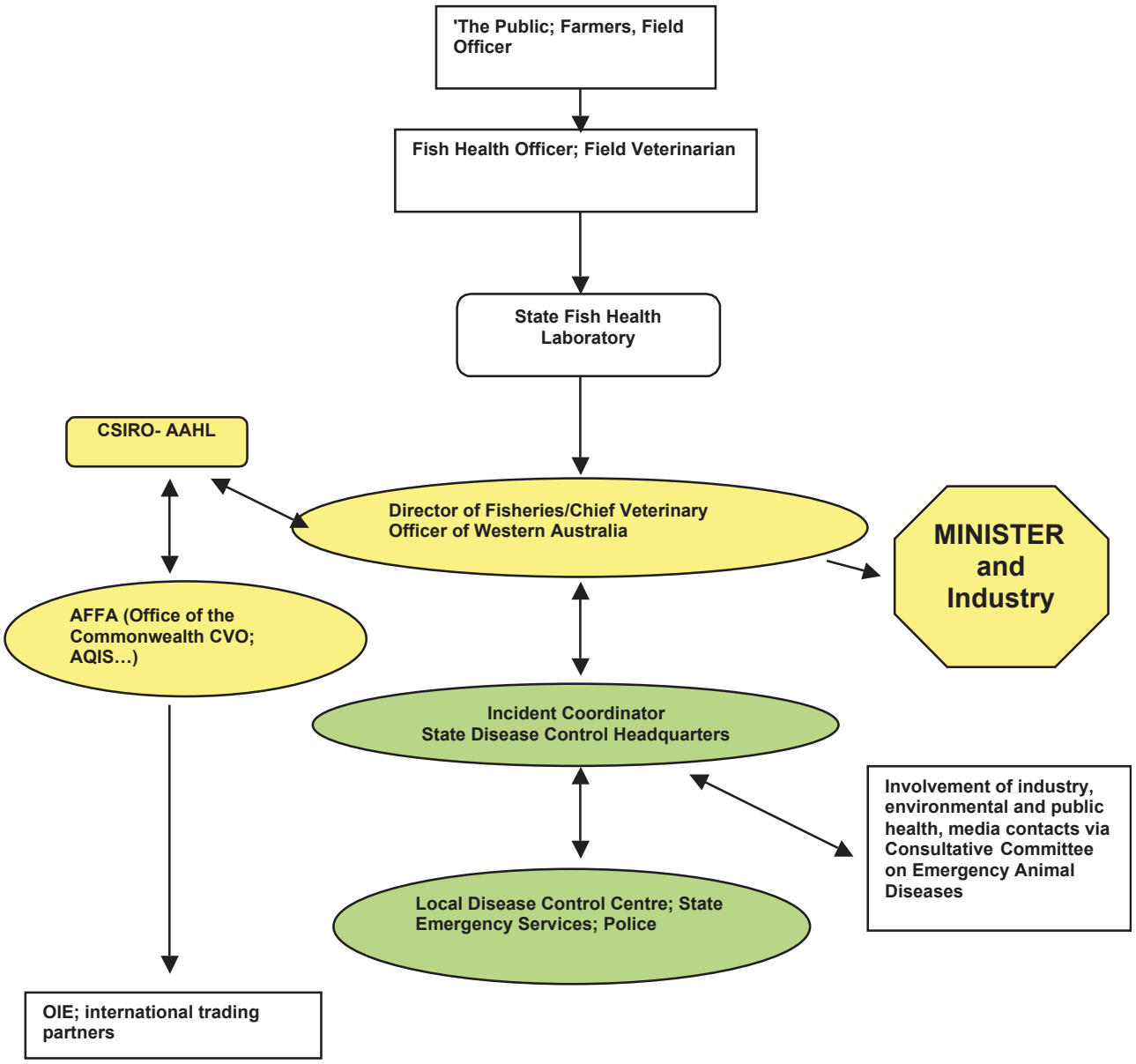

Figure 1. Diagram of reporting relationships.

Day Two – Tactical Exercise Without Troops

Participants were asked to form small teams including producers and Department of Fisheries staff. Tasks set for the groups required them to develop solutions to a range of practical problems including rapid harvest, stock destruction and disinfection procedures. Differences in the plans developed by the different groups then acted as the substance for a group discussion. From this forum any changes to the existing Emergency Response Plan were developed.

Day two was conducted by a skilled and experienced Controlling Staff Team who have been involved in delivering similar exercises nationally.

Participants were asked to provide an evaluation following the completion of the exercise to ensure that the program is continuously improved.

A copy of the final report was sent to members of the AMWING association following the conclusion of the exercise.

Results and discussion

A tactical exercise to examine and test the skills and abilities of the participants in-group problem solving and decision making skills relating to emergency response procedures was held in Geraldton over the period 7th to 9th October 2002. A detailed report of the exercise is attached (Appendix 1).

The first day (7th October) was a familiarization field trip to the Abrolhos Islands.

On the 8th October the exercise focused on the operation of a Local Disease Control Centre (LDCC) and involved Department of Fisheries-WA staff from Perth and from the Geraldton Regional Office. This group was supported by two Department of Agriculture WA staff, the Chief Veterinary Officer (CVO), Dr Peter Buckman, and the Manager (Animal Health), Dr Ashley Mercy. In addition, Simon Bennsion, Executive Officer of the AMWING Pearling Association and Richard Knox, Chairman of the AMWING Pearling Association also participated. This day was an opportunity to put the departmental staff through a local disease control centre exercise with the objective of testing, through a scenario which mimics a real emergency situation, the level of communication, organization, decision making and operational skills of those present. This exercise also served to increase participants knowledge of communication routes to be used in an emergency disease response.

On Wednesday 9th October, five producers and the AMWING Executive Officer combined with ten officers from the WA Department of Fisheries to participate in a 'desk-top' farm-level response to an emergency disease incident. Specific tasks were set to test Departmental and industry response to a local disease situation – in this case the destocking of "affected" farms. Participants were also tested for their ability to manage tasks by prioritizing a number of competing demands during this operational phase of an emergency response (objective 4).

As a result of the exercise, a number of issues relating to both the within-state emergency response planning and with AQUAPLAN itself were identified (see Outcomes, page 15). This clarification of the roles within and between the various agencies involved and how they fit within the WA Emergency plan and AQUAPLAN frameworks met the third objective set for the project.

The exercise was also an opportunity to familiarize participants from the Department of Agriculture and Agriculture Fisheries and Forestry Australia (AFFA) with operational practices on a typical non-maxima oyster lease and to familiarize AFFA staff with some of the problems inherent in managing disease in a remote location.

The exercise identified key areas for improvement in emergency management procedures across a range of subjects including planning, communication, staffing and resourcing.

An emergency response plan was documented.

Benefits

Considerable benefits accrued to the Department of Fisheries and AMWING as a result of the exercise. It was an opportunity to test the Departments response to an emergency, to acquaint AMWING with the existence of the Departmental plan and of AQUAPLAN, and to initiate key members of the Department of Agriculture and AFFA into the unique problems posed by emergencies at sea in remote locations. The outcomes and areas for further development (which were also benefits of the exercise) are summarized under "Outcomes and Further Development" (below).

Intellectual property

No intellectual property, other than covered by copyright has been identified.

Outcomes and further development

The exercise tested capability and capacity to respond during an emergency response. Outcomes of the exercise which were identified include:

1. A proportion of the Department of Fisheries staff were not aware of the levels of management involved in the response to a disease emergency within Western Australia or the legislation under which emergency disease incidents are managed. Consideration should be given to providing staff with further information on these processes.

2. The Western Australian Department of Agriculture has a scheme under which emergencies are classified on a scale of 1-4 in terms of their impact/importance. This classification determines the level of resources that are available to address the emergency. Such a scheme could be adopted by the Department of Fisheries to classify their emergencies.

3. There is a lack of consistent terminology between AUSVETPLAN, AQUAVETPLAN and other documents. This was highlighted by the use of the term "Dangerous Contact Premises". Consideration should be given to ensuring consistent terminology is used in all emergency plans.

4. It was suggested that the Commonwealth Department of Agriculture, Fisheries and Forestry take a lead role in considering a scheme whereby diseases of national importance are ranked according to their likely impact on Australian aquaculture and fisheries. This would provide States/Territories with a guide to the level of effort and resources that should be committed to controlling/eradicating the various nationally notifiable diseases.

5. A consistent flow of detailed information to industry is essential to explain the actions of the emergency response team and thereby encourage compliance with LDCC actions and decisions.

6. A range of existing technologies and methods exist that can be applied to emergency response activities. The rock lobster industry already cleans their boat hulls by the process of "chlorine tarping" and this could readily be applied to disinfecting boats working in a disease event. Similarly, sonar buoys are currently used to monitor vessel movements and could be used to monitor movements in restricted areas.

7. Local/regional emergency management committees exist within Western Australia and these would be activated early in the disease emergency. These are the channels through which inter-agency cooperation would be established. The role of these committees in emergency disease management should be clarified, documented and readily available to all personnel involved in the emergency response.

8. It may be necessary to obtain emergency use permits for the use of disinfection chemicals, such as chlorine and hydrogen peroxide. The preliminary paperwork that may be required to develop, or coordinate the development of these applications and their submission to the Australian Pesticides and Veterinary Medicines Authority could be developed beforehand, perhaps as an adjunct to the Disinfection Manual being developed by AFFA under AQUAPLAN.

9. The oyster industry is a unique agricultural industry in that it produces a product that can be sterilised and subsequently marketed even when the pearl is removed from diseased shell

during an emergency disease response. Where compensation is an issue, provision needs to be made in any emergency plans for the recovery of pearls and shell and their subsequent sterilization prior to marketing. Specialist valuers with a knowledge of the jewelry industry may be needed to adequately assess the salvage value of pearls and the value of seeded shell that is destroyed during disease emergencies.

10. The AMWING Pearl Producers Association have been able to incorporate the outcomes from this project into their Environmental Code of Practice which has been completed as part of the Eco-Efficiency Project between AMWING, Aquaculture Council of WA and Environment Australia. The outcomes will also be incorporated into the Environmental Management System Framework being developed as part of this initiative.
11. The AMWING Pearl Producers Association will consider the feasibility of pre-preparing Emergency Response Action Packs and Equipment Check Lists for members to have available should emergencies occur.

Conclusion

The exercise, and the project which supported it, were well received, with outcomes not only for AMWING, but also for the Department and for AQUAVETPLAN.

Key recommendations

	Recommendation	Responsibility
1	The Department of Fisheries staff should be provided with further information on the levels of management involved in the response to a disease emergency within Western Australia or the legislation under which emergency disease incidents are managed.	Department of Fisheries
2	The Department of Fisheries should adopt the scheme used by the Western Australian Department of Agriculture under which emergencies are classified on a scale of 1-4 in terms of their impact/ importance. This classification determines the level of resources that are available to address the emergency.	Department of Fisheries
3	The Commonwealth Department of Agriculture, Fisheries and Forestry should take a lead role in developing a scheme whereby aquatic diseases of national importance are ranked according to their likely impact on Australian aquaculture and fisheries. This would provide States/Territories with a guide to the level of effort and resources that should be committed to controlling/eradicating the various nationally notifiable diseases.	AFFA
4	Local/regional emergency management committees exist within Western Australia and these would be activated early in the disease emergency. These are the channels through which inter-agency cooperation would be established. The role of these committees in emergency disease management should be clarified, documented and readily available to all Department of Fisheries personnel involved in the emergency response.	Department of Fisheries
5	It may be necessary to obtain emergency use permits for the use of disinfection chemicals, such as chlorine and hydrogen peroxide. The preliminary paperwork that may be required to develop, or coordinate the development of these applications and their submission to the Australian Pesticides and Veterinary Medicines Authority could be developed beforehand, perhaps as an adjunct to the Disinfection Manual being developed by AFFA under AQUAPLAN.	ABG/SAC
6	Pre-prepared Industry Emergency Response Action Packs and Equipment Check Lists should be prepared for the various types of emergency and be distributed to members.	AMWING

Staff

Attendees were:

Craig Astbury	Fisheries Officer, Perth Office	Dept of Fisheries
Andrew Beer	Aquaculture Development Officer[1]	Dept of Fisheries
Simon Bennison	AMWING Executive Officer	Industry
Drew Bessen	Fisheries Officer	Dept of Fisheries
Pia Boschetti	Latitude Pearls, Abrolhos Islands	Industry
Peter Buckman	Chief Veterinary Officer, Perth Office	Dept of Ag
Melanie Crockford	Lab Technician, Perth Office	Dept of Fisheries
Russel Dyson	Regional Manager Mid West[2]	Dept of Fisheries
Lisa Farrington	Fisheries Officer, Geraldton Office	Dept of Fisheries
Alison Fleming	Legal Officer, Perth Office	Dept of Fisheries
Errol Francis	Heritage Pearls, Shark Bay	Industry
Brian Jones	Senior Fish Pathologist, Perth Office	Dept of Fisheries
Richard Knox	Blue Lagoon Pearls, Shark Bay	Industry
Ashley Mercy	Manager, Animal Health, Perth Office	Dept of Ag
Jamie Morgan	Blue Lagoon Pearls, Shark Bay	Industry
Kim Nardi	Fisheries Officer	Dept of Fisheries
Tim Nicholas	Supervising Fisheries Officer, Gascoyne	Dept of Fisheries
Matt Robinson	A/g Senior Supervisor Fisheries, Mid-West	Dept of Fisheries
Scott Sherrington	Fisheries Officer, Geraldton & Abrolhos	Dept of Fisheries
Tina Thorne	Senior Program Officer	Dept of Fisheries
Craig Trinidad	Fisheries Officer, Geraldton & Abrolhos	Dept of Fisheries

[1] Carnarvon (Mid-West region)
[2] Geraldton & Region (down the coast)

APPENDICES

APPENDIX 1: "Exercise Necklace" - Final Report to the AMWING Pearl Producers Association

"Exercise Necklace" – Final Report to the AMWING Pearl Producers Association

A Local Disease Control Centre (LDCC) Simulation Exercise (8th October 2002)
and
A Farm - Level Simulation Exercise (9th October 2002)

Prepared by:
Iain East, Office of the Chief Veterinary Officer, AFFA[3]
Iska Sampson, Office of the Chief Veterinary Officer, AFFA[4]

On the 8th and 9th of October, 2002, members of the Department of Fisheries (WA), supported by Department of Agriculture (WA), took part in a simulation exercise designed to examine the preparedness to respond to an emergency disease incident in the AMWING pearling industry. The structure of the training was developed through discussions with Dr Brian Jones of Fisheries – WA and Simon Bennison, the Executive Officer of the AMWING Pearl Producers Association. Drs Iska Sampson and Iain East of Agriculture, Fisheries and Forestry – Australia (AFFA), developed the detailed plans for the day.

One of the recommendations arising from the exercise is to develop an industry-level emergency response plan. The plan would ideally include on-farm issues as well as off-farm issues such as market access. The plan should be compatible with higher-level plans such as the Department of Fisheries Emergency Management Plan to maintain consistency and flow of response activities.

This report details the main issues arising from both the LDCC exercise and the farm-level exercise that may be useful in developing an industry-level emergency response plan, as well as providing information on the management of an emergency disease incident at the Abrolhos Islands, WA.

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DAY 1 (8 OCTOBER 2002)
LOCAL DISEASE CONTROL CENTRE SIMULATION

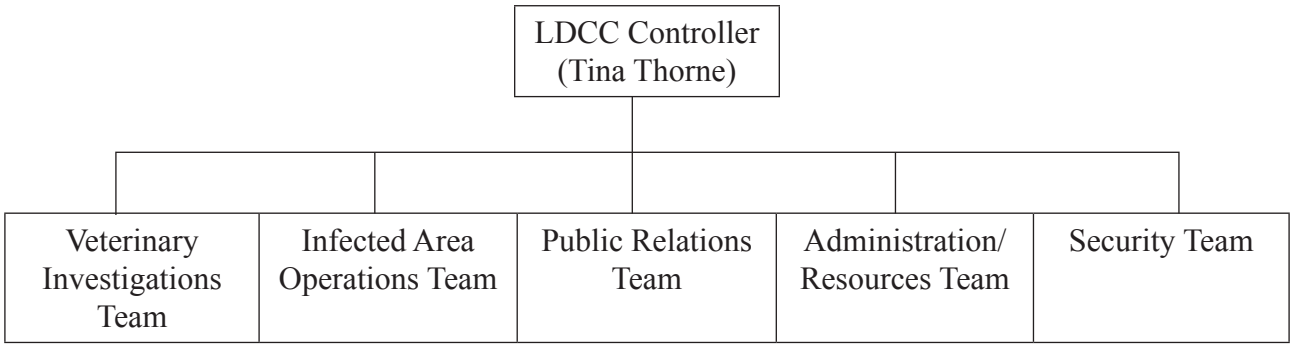
On the 6th October, the exercise focused on the operation of a *Local Disease Control Centre* (LDCC) and involved Fisheries-WA staff from Perth and from the Geraldton Regional Office. This group was supported by the WA Chief Veterinary Officer (CVO), Dr Peter Buckman and the Manager (Animal Health), Dr Ashley Mercy. In addition, Simon Bennsion, Executive Officer of the AMWING Pearl Producers Association and Richard Knox, Chairman of the AMWING Pearl Producers Association also participated. A full list of participants is attached as *Appendix A*.

The exercise tested capability and capacity to respond at two stages during an emergency response. The format of the exercise was in the style of a 'telephone battle'. Information was directed to the LDCC as though a real disease outbreak was occurring in the field. The first session simulated the commencement of the LDCC functioning. The LDCC controller, Tina Thorne, commenced the exercise with a briefing on the status of the fictitious disease outbreak and the work program required during the exercise.

The second session in the exercise simulated a time four days after the first session when laboratory results had confirmed that stock movements had infected two additional farms. Again the team managed the demanding workload well, responding effectively to the nature of the challenges presented.

Structure of the LDCC

The structure of the LDCC used in the exercise was as follows:



The functions of each team were those outlined in the *AQUAVETPLAN Control Centre Manual* (CCM). The coordination of the response was that outlined in both the *AQUAVETPLAN CCM* and the *Department of Fisheries (WA) Emergency/Incident Management Plan* (July 2002). The following points were discussed:

Management of the emergency

- If the resources required to control the emergency disease incident are likely to be beyond those available in the Department of Fisheries, WA then a *State Emergency Coordination Group* (SECG) is established. The SECG includes representatives from all agencies involved in the emergency response (e.g. Department of Fisheries WA, Department of Agriculture WA, SES, and Police). The agencies involved will depend on what resources are required to control all people, animals and things during the emergency response. The generic WA State Emergency Response Plan will also be used.

- The CEO Fisheries will establish the State Disease Control Headquarters (SDCHQ), based in Perth, to manage the response within WA, and if necessary, will coordinate with any other States/ Territories involved.
- If the response requires significant resources, the SDCHQ will establish and manage a LDCC. If a disease incident occurs in more than one region, a LDCC may be established in each affected region (e.g. Geraldton and Broome).
- Chief Executive Officer (CEO) of Fisheries is responsible for making all management decisions regarding the emergency response. The WA Chief Veterinary Officer and Senior Fish Pathologist provide advice, but do not make the overall decisions. Decisions are made at the level of the SDCHQ and the SECG. The LDCC does not make decisions. They are instructed by the SDCHQ on what operations need to be carried out in the LDCC's region. They also feed information back to the SDCHQ on the status of the emergency response in the region.

Veterinary Investigations

Surveillance:

- Examination/testing of wild oysters is an essential component of a surveillance program. Evidence of infection/disease in wild oysters would trigger the decision that eradication of the pathogen would not be feasible. The emphasis of the response would then shift from eradication to control and mitigation of the disease. The feasibility of developing and implementing a zoning program would also be examined.
- A range of existing technologies and methods exists that can be applied to emergency response activities. The rock lobster industry already cleans their boat hulls by the process of "chlorine tarping" and this could readily be applied to disinfecting boats working in a disease event. Similarly, sonar buoys are currently used to monitor vessel movements and could be used to monitor movements in restricted areas.

Infected Area Operations

- The oyster industry is a unique agricultural industry in that it produces a product that can be sterilised and subsequently marketed even when the pearl is removed from diseased shell during an emergency disease response. Provision needs to be made in any emergency plans for the recovery of pearls and shell and their subsequent sterilization prior to marketing. Specialist valuers with knowledge of the jewelry industry may be needed to assess adequately the salvage value of pearls and the value of seeded shell that is destroyed during disease emergencies. This would be an integral part of any compensation plan.

Removing shell from the water:

- Place shell into tubs that can be disinfected.
- It was estimated that all shell from each farm could be removed from the water and placed into tubs within one day.

Disinfection:

- Soak shell in the tubs in chlorine bleach (60 ppm) overnight before shipping to the mainland the next morning for processing, destruction, and disposal.
- Panels can be dipped in chlorine bleach and allowed to dry outside for at least 2 weeks (normally allowed to dry in the sun for 4 weeks anyway).

Processing, destruction and disposals of infected shell

- The Abrolhos Islands is a class A Reserve. Infected shell would therefore be transported to Geraldton for treatment/processing, destruction and disposal.
- Processing (involving the removal of meat and cleaning of shell) could potentially be conducted at a crayfish processing plant.
- Infectious waste material for disposal would be incinerated and/or buried.

Salvage of product

- Pearls and pearl products (e.g. Mabe and Keshi) would be salvaged upon processing in Geraldton, disinfected and sold to market.
- If cost effective, empty shell once processed can be disinfected/treated and sold (e.g. to paint manufacturers).

Effects of a storm:

- It may take several days to retrieve any panels lost from the lines during the storm. If a panel lands on the ground, the oysters can survive for a few days. If it lands in deep water, the sand smothers and kills the shell in about a week.

Public Relations

- Whilst the majority of media coverage will be managed by the State Disease Control Headquarters (SDCHQ), the LDCC will be approached by local media. Whilst one person should be sufficient to deal with the media at an LDCC, that person should be provided with a set of talking points by SDCHQ to assist with this task.
- A consistent flow of detailed information to industry is essential to explain the actions of the emergency response team and thereby encourage compliance with LDCC actions and decisions.
- The SDCHQ is the primary source of information/advice to industry on the emergency incident. Information/advice given to industry by the LDCC is approved by the SDCHQ. Information to industry from the LDCC would focus on operational issues managed by the LDCC, and is based on the sound scientific and policy advice provided to, or sourced from the SDCHQ.
- Regular (daily if possible) media releases are recommended to provide the local media with succinct/brief updates of the emergency incident response. Even if there is no significant change in status, a media release stating the current status, and that control activates are continuing, will assist in reassuring locals that the incident is ‘under control’.
- During an emergency response, industry is formally consulted at the initiation of the emergency response and is represented by a nominated industry representative at the SDCHQ. Industry is also involved via daily or weekly “status reports”, and at industry meetings with Fisheries Officers and Fisheries technical and policy staff.

Administration/Resources

- Additional WA Fisheries Officers and boats/equipment could be sourced from other regional areas within WA, especially those with experience in the pearling industry, e.g. the Mid-west and Gascoyne Regions. These pose a potential risk when they return to base, and sterilization procedures may be needed.
- GPS systems would be available for use if necessary.

- Aircraft to move people/shell between the Abrolhos Islands and Geraldton were considered readily available in the area.
- Resources such as accommodation, boats, ice, chlorine bleach and tubs were considered readily available in the Geraldton region. *Note: Since the exercise, an accommodation laboratory facility has been completed for the Department of Fisheries on Rat Island, near the airfield at the Abrolhos Islands.*
- It was estimated that 16 – 18 people could be sourced to operate the LDCC, provided only one LDCC was required, and provided that other operational issues (such as the start of the rock lobster season) did not cause a drawdown of available staff. Should this happen, staff would need to be seconded from other agencies or locations.

Security

- Liaise with the CVO and SDCHQ to ensure officers in the region have the necessary authority to ensure emergency response activities are carried out as required.
- A movement control plan would be developed with a designated security coordinator (e.g. Supervisor Fisheries Officer, Mid-West)
- A movement register would be established to record all movement of personnel, shell and equipment.
- Fisheries/Security Officers posted at the Abrolhos Islands, in Geraldton, and on vessels and aircraft patrolling the exclusion area.
- Patrols would check farm sites and surrounding areas for floating debris and missing/lose panels (e.g. due to a storm). This would include diving for sunken panels and would involve equipment sterilisation if necessary.

DAY 2 (9 OCTOBER 2002) – THE FARM - LEVEL SIMULATION

On Wednesday 7th October, five producers and the AMWING Executive Officer combined with ten officers from the Department of Fisheries (WA) to participate in a 'desk-top' farm-level response to an emergency disease incident. Participants were divided into 4 groups each representing the staff of various fictitious black-lip[5] pearl farms located within the Houtman Abrolhos Islands. Each group comprised of two producers and one WA Department of Fisheries Officer. A full list of participants and their groups is attached as *Appendix B*. The farms were situated 3 - 40 km away from the initial disease outbreak to examine the effect that distance from the outbreak would have on the response plan developed. Initially, the farms were not clinically affected, however, the disease eventually spread to each of the farms requiring the groups to respond accordingly.

Morning Session

Each group participated in the exercise enthusiastically and developed extensive contingency plans to manage the threat of disease. All groups appeared familiar with the need to restrict movements of all kind and to increase surveillance of stock for evidence of infection. The use of the farms' existing environmental monitoring program as a source of data was also identified. This included both daily worksheets and on-site thermometers etc. that are connected to data loggers. Because farm staff routinely work on site for periods of 8-10 days, movement controls were not a concern in the short term.

Afternoon Session

In the second session, each group addressed the practical problems associated with the rapid destocking of an entire farm and the safe transport of the stock to Geraldton for disposal. A significant amount of practical information was generated from the producers' knowledge of their own farm and industry resources, and the additional resources available in the Geraldton area.

The producers estimated that a farm with 10,000 shell on 25 lines could be removed from the water in 8-10 hours. This process would need a total of ten staff. Large tubs necessary for the transport and/or sterilization of shell are readily available and regularly used in the fishing, rock lobster and pearl industries. Large volumes of chlorine are readily available and are routinely used for chlorine tarping of boats as well as on-site sterilization of equipment on farms. For sterilization of equipment such as lines, panels floats etc., each farm had access to land within the Abrolhos Islands where the equipment could be spread in the sun for several months. Rock Lobster factories in Geraldton could be used to process oysters to recover pearls and shell. Significant issues that were identified included:

Sampling and surveillance

- Wildlife was not seen to be a threat in terms of a vector for spread of disease. This assumption may prove incorrect, therefore this risk should always be considered. The Veterinary Investigations Team based at the LDCC should provide advice on this issue to industry. Advice on wildlife control is also provided in the AQUAVETPLAN Operational Procedures – Disposal Manual.
- Other oysters/molluscs associated with fouling pearl shell and equipment such as panels and boats have the potential to harbor and spread disease to farmed shell.
- Spread of the disease through spawning of oysters is unlikely because spawning is seasonal and only occurs in the warmest part of the year (Feb/March). In addition, it was unlikely that sick oysters would spawn.

[5] *Pinctada margeritifera*

- All staff should be briefed on the procedure for sample collection and submission (as advised by Fisheries WA). The sampling procedure should be written down and readily accessible on all farms and boats.
- Snorkel inspection of shell may be necessary to minimise handling stress.
- Dr Brian Jones, Senior Fish Pathologist, Department of Fisheries, WA presented the following summary of sampling.

Sampling procedures presentation

There are currently no PCR-based tests used for pearl oysters in Australia. Therefore unless specifically requested, DO NOT send frozen samples for testing. Freezing creates cell lysis (rupture) and fracture of tissue rendering the sample useless for the tests currently used for oysters in Australia.

FIXED SAMPLES

The most important laboratory diagnostic test currently performed on pearl oysters in Australia is 'histology', which requires 'fixed' samples:

- Fix samples using 10% formalin in seawater (e.g. 10 ml concentrated formalin plus 90 ml seawater)
- Concentrated formalin can be obtained from chemical suppliers, stock and station agents and the local mortuary!
- If formalin is not available, tissue can be placed in alcohol, or even methylated spirits, however it is not preferred by the laboratory because alcohols, such as methylated spirits, are preservatives, NOT fixatives.
- Ensure specimen jars are large enough to allow an abundance of formalin (it gets used up as the tissue becomes fixed):
  - The oyster sample is ideally no more than 10% of the volume of the jar, of which the other 90% is full of fixative solution. This is essential for complete tissue fixation.
- It is important that sample tissue is fixed as soon as possible after death of the oyster and before the cells start to die.
- Don't forget to label the specimen with date, your name and where sampled!
- After the tissue has been in fixative for a full 24 hours, decant the formalin, leaving the tissue wet but not in free liquid.
- Place sample jars in 4 – 5 SEALED plastic bags to ensure there is no leakage of either liquid or fumes.
- Pack carefully to avoid breakage or damage.
- Dispatch to laboratory.

OH&S

- Use formalin only in a well ventilated area because it 'fixes' any cells in comes in contact with (e.g. cells lining the inside of your nose, your fingers etc.).
- Use protective gloves, masks and clothing to ensure safety of sampling staff.
- Formaldehyde is the active form of formalin.

Disposal of formalin

Formalin is biodegradable, however due to its toxic effects it must be disposed of safely e.g. contact a TAFE laboratory or any other government/commercial laboratory.

Whole oyster samples:

- Chip the shell to allow the formalin to penetrate the oyster and fix the tissue. Dispose of the broken shell safely (prevent any potential spread of infection), as the shells are not required for histology.
- Place sample jars in 4 – 5 SEALED plastic bags to ensure there is no leakage.

Label your samples:

- Label each jar clearly with:
  - Name of the farm
  - Contact name and phone number
  - Date of sample
  - Type of sample, age/size of oyster
  - Reason for submission of sample

Specimen advice notice:

Send the specimen advice notice with the samples. The information is essential for health monitoring and disease investigation. Include the following information (from daily farm logs):

- Water temperature
- Colour changes in the water (e.g. for algal blooms)
- Presence/absence of fish around the lines, especially lines with increased shell mortalities
- Movement of shell
- Seasonal variations and their effects on the farm

Notify the laboratory

- Phone the laboratory to let them know the sample is on its way!

Farm management practices

- Animals should be handled as little as possible during environmental stress to decrease susceptibility to disease.
- Integrate management practices with close neighbours to minimise potential spread of infection between farms.
- Keep records of all farm management procedures and environmental parameters e.g.:

CLEANING LOG

Date: *Time:*

Line ID:

Age of shell/panel size:

Number of shell: *Mortality number:*

Comments:

DAILY WORK LOG

Date: *Crew:*

Operation: Cleaning/Grading/Seeding

Location: *Line(s)#:*

Seawater Temp

Max degrees C Min degrees C

Environmental Conditions

Wind: Temp: Other:

Actions:

Breakages/Mortality/Accidents:

- Develop a checklist of people to be contacted regarding the emergency incident e.g.:

FARM RESPONSE CHECKLIST

Vessel: *Skipper:*

Date: *Time:*

Incident:

1) Disease Accident Equipment

2) Location: Longline#:

3) Shell type – Age/Size:
Source:
Pearl – round/Mabe:
Panel:

Notify:

Farm Manager:

Directors: Perth/Geraldton

Fisheries: Senior Fish Pathologist
Regional Manager Mid-west (RMMW)
Aquaculture Development Officer (ADO)
Police/Ambulance/Royal Flying Doctor Service (RFDS)/SES

Quarantine and movement controls

- Set up a quarantine area around the farm site.
- Appropriately located quarantine sites within farms are recommended to decrease the chance of any disease spreading from introduced shell (e.g. from the hatchery) to other shell (especially seeded stock).
- Record all movement of stock, people and equipment on and off the farm area.

Destocking

- Infected, especially if dead or moribund ('sick'), shell needs to be removed from the water as soon as possible to minimise the spread of infection, and the 'infectious load' on the farm.
- Pearl harvest can be performed in Geraldton to save time allowing shell to be removed from the water as rapidly as possible.
- 4 m^3 (cubic metre) plastic tubs (full of disinfectant e.g. hydrogen peroxide or chlorine bleach) on board vessels can be used to store/contain shell when removed from the water.

Disinfection

- It may be necessary to obtain emergency use permits for the use of disinfection chemicals, such as chlorine and hydrogen peroxide. The LDCC may be required to develop, or coordinate the development of these applications and their submission to the Australian Pesticides and Veterinary Medicines Authority.
- The LDCC/Department of Fisheries (WA) should advise on the most appropriate disinfectant to use and provide farmers with a protocol for the disinfection of people, equipment and shell.
- Safety gear and protective clothing, including gloves and masks, will need to be readily available when using large amounts of chlorine, hydrogen peroxide and other chemicals.
- Documentation of standard disinfection procedures for pearl oyster farms was sought from the Department of Fisheries, WA for general day-to-day use on farms.
- Disinfectants: hydrogen peroxide is less harmful on the environment than chlorine bleach.
- Chlorine bleach bath at 60ppm is effective at cleaning and sterilizing instruments and equipment. Ensure the concentration is maintained, e.g. with measuring systems used in swimming pools.
- Chlorine bleach 'tarping' can be used to disinfect small vessels when leaving farm site.
- Disinfection of long lines – can be done in the $4m^3$ tubs full of disinfectant.
- Panels, lines and floats can be air dried and disinfected in sunlight on land at the Abrolhos Islands.

Destruction and Disposal

- The LDCC would need to contact the Department of Environmental Protection to ensure any necessary permits for the burying or burning of oysters are obtained.
- Waste management trucks might be used to transport infected shell safely from the Geraldton docks to the site of salvage/destruction/disposal.
- Existing processing facilities would be useful sites for the treatment of infected waste before disposal, and salvage of pearls/shell, e.g. crayfish factories, waste treatment facilities.

Restocking

- As a general rule, farms should be left fallow (de-stocked) for a minimum of 2 months before restocking.
- Implement a hygiene/disinfection protocol and train all staff to prevent disease introduction/ spread.
- Implement a surveillance and monitoring program of water and stock to assist in early detection of disease to prevent a massive mortality event:
  - Maintain a log book of information on introduced stock (source, date, environmental parameters including water temperature and water currents)
  - Maintain a logbook of movement of people and vessels on/off the farm.
  - Test stock before introduction (random sampling).
- Integrate management practices with neighbouring farms.
- Set up a quarantine site on the farm for all newly introduced stock.

Communications and Public Relations

- The AMWING industry has an existing media plan that would be activated in the event of a disease emergency. It is important that this media plan is consistent with Department of Fisheries media activities during an emergency incident.
- Regular communication (every 1 – 3 days) between farmers, and between farmers and WA Fisheries Officers is essential for the effective control of an emergency disease incident. This is especially important in coordinating control measures to ensure they are successful and not disrupted by a neighbouring farmer, Department of Fisheries or any other industry/tourist activity in the area.
- Sharing information on how to carry out emergency response procedures will help each farmer in the area to use the most cost-effective procedure for their farm. Sharing of resources may also prove extremely useful to all farms affected.

"Exercise Necklace" – Final Report

A Local Disease Control Centre (LDCC) Simulation Exercise

8th October 2002

Appendix A: Participants list

Veterinary Investigation Team

Peter Buckman	Chief Veterinary Officer, Perth Office	Dept of Agriculture
Brian Jones	Senior Fish Pathologist, Perth Office	Dept of Fisheries

Public Relations Team

Andrew Beer	Aquaculture Development Officer[6]	Dept of Fisheries
Simon Bennison	AMWING Executive Officer	Industry
Richard Knox	Blue Lagoon Pearls, Shark Bay	Industry
Craig Ashbury	Fisheries Officer, Perth Office	Dept of Fisheries

Administration/Resources Team

Russel Dyson	Regional Manager Mid West[7]	Dept of Fisheries
Ashley Mercy	Manager, Animal Health, Perth Office	Dept of Agriculture
Tim Nicholas	Supervising Fisheries Officer, Gascoyne	Dept of Fisheries

Security Team

Matt Robinson	A/g Senior Supervisor Fisheries, Mid-West	Dept of Fisheries
Craig Trinidad	Fisheries Officer, Geraldton & Abrolhos	Dept of Fisheries
Scott Sherrington	Fisheries Officer, Geraldton & Abrolhos	Dept of Fisheries

Infected Area Operations Team

Alison Fleming	Legal Officer, Perth Office	Dept of Fisheries
Melanie Crockford	Lab Technician, Perth Office	Dept of Fisheries
Lisa Farrington	Fisheries Officer, Geraldton Office	Dept of Fisheries
Jamie Morgan	Blue Lagoon Pearls, Shark Bay	Industry

[6] Carnarvon (Mid-West region)
[7] Geraldton & Region (down the coast)

"Exercise Necklace" – Final Report

A Farm-Level Simulation Exercise

9th October 2002

Appendix B: Participants list

Exercise Controllers

Iain East	Aquatic Animal Health, OCVO	AFFA
Iska Sampson	Aquatic Animal Health, OCVO	AFFA

LDCC Controller

Tina Thorne	Senior Program Officer	Dept of Fisheries

Animal Health Laboratories, Fisheries WA, Perth

Brian Jones	Senior Fish Pathologist, Perth Office	Dept of Fisheries

Black Beauty Pearl Farm

Pia Boschetti	Latitude Pearls, Abrolhos Islands	Industry
Don Woodcock	Abrolhos Pearls, Abrolhos Islands	Industry
Scott Sherrington	Fisheries Officer, Geraldton & Abrolhos	Dept of Fisheries
Melanie Crockford	Lab Technician, Perth Office	Dept of Fisheries

Sandy Island Pearl Farm

Simon Bennison	AMWING Executive Officer	Industry
Drew Bessen	Fisheries Officer	Dept of Fisheries
Craig Trinidad	Fisheries Officer, Geraldton & Abrolhos	Dept of Fisheries

Easter Paradise Pearl Farm

Richard Knox	Blue Lagoon Pearls, Shark Bay	Industry
Errol Francis	Heritage Pearls, Shark Bay	Industry
Tim Nicholas	Supervising Fisheries Officer, Gascoyne	Dept of Fisheries
Kim Nardi	Fisheries Officer	Dept of Fisheries

Mystic Pearl Farm

Jamie Morgan	Blue Lagoon Pearls, Shark Bay	Industry
Matt Robinson	A/g Supervisor Fisheries Officer, Mid-West	Dept of Fisheries
Andrew Beer	Aquaculture Development Officer[8]	Dept of Fisheries

[8] Carnarvon (Mid-West region)

APPENDIX 2: Media release

Media Release

07 October 2002 *42/02*

Department of Fisheries

Abrolhos Gears Up For Operation Necklace

The Abrolhos Islands black pearl industry will tomorrow (08/10/02) participate in an emergency disease control exercises as part of a statewide strategy to bring the Department of Fisheries WA up to speed with the latest in emergency response techniques in protecting our valuable marine resources.

Operation 'Necklace' is a series of functional (telephone battle) and discussion exercises built around an outbreak of the fictitious pearl oyster disease "Pearl Ring Disease".

Set in the year 2005, the simulated crisis begins when a local pearl farmer discovers the fictional virus PRV.

The Local Disease Control Centre (LDCC) simulation exercise, run in two sessions on the 8th October, will simulate two distinct time periods over one week of simulation time.

Department of Fisheries Senior Fish Pathologist Dr Brian Jones said the exercises were extremely important in providing real-time implementation of the Department of Fisheries WA Emergency Management Plan and involved the co-operation the AMWING Pearl Producers Association and the Aquaculture Council of WA.

"The aim of these exercises is to increase awareness of issues associated with emergency disease control and to exercise current techniques of emergency disease management," Dr Jones said.

"Communication and knowledge were identified as the prime needs for commissioning these exercises," he said.

Dr Jones said the exercise would yield vital data on the logistics of operating a Local Disease Control Centre (LDCC) at a location remote from Perth.

Department of Fisheries WA officers will remain on alert for any actual outbreaks of disease during the exercise period, he said.

The exercise will be conducted by Agriculture, Fisheries and Forestry Australia on behalf of the Department of Fisheries WA and is funded by the Commonwealth Government as part of the "Building a National Approach to Animal and Plant Health" strategy.

Funding was received from the Fisheries Research and Development Corporation.

MEDIA CONTACTS:

Dr Brian Jones
Senior Fish Pathologist
Ph: (08) 99368 3649 (Mob): 0419 908 802

Jenny Hodder
Senior Public Relations Coordinator
Ph: 9482 7235 (Mob): 0418 901 767

APPENDIX 3: Department of fisheries emergency response plan

DEPARTMENT OF FISHERIES (WA)

EMERGENCY / INCIDENT

MANAGEMENT PLAN

July 2002

Department of
Fisheries

Fish for the future

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1.0 Introduction

This Emergency/Incident Management Plan is designed to:

- enable the Department of Fisheries to respond to emergencies of any nature in a consistent and effective manner.
- be expanded and adapted to suit specific emergencies, including the establishment of sub-plans which all have a consistent initial approach.

The Emergency/Incident Management Plan provides a framework for the administration of all incidents in which the Department is involved as either a primary or secondary responder, including:

- fish kills;
- disease outbreaks;
- feral pest incursions;
- pollution - oil spills and chemical spills;
- algal blooms;
- any other emergency/incident which is a potential threat to the Department.

2.0 Initial Incident Management

Regional Managers, Program Managers and/or Director Research would in most instances have the initial responsibility for the recognition of an incident. They should then advise the Director Fisheries Management Services (DFMS) who will determine whether the incident is worthy of a response. If worthy of a response the DFMS will register the incident and initiate coordination of the incident response in accordance with this Plan. If DFMS is not available initial contact should be with the Executive Director (ED). Outside of work hours Regional Managers, Program Managers, Director Research and DFMS can be contacted on their mobile phones. The DFMS will advise any other Program and Regional Manager(s) he/she considers necessary at this early stage.

The initial response should include the following:

1. Recognition and where possible confirmation of the incident.

2. Advise DFMS. DFMS may be advised prior to confirmation of the incident, depending on the time required to obtain confirmation (e.g. disease testing, species identification).

3. Appointment of an Incident Coordinator (IC) by DFMS.

4. An initial meeting to:

⇒ assess the incident to determine appropriate resource allocation;

⇒ define the incident and confirm the need for the Department to respond;

⇒ define and determine the Department's response;

⇒ if necessary, appoint taskforce staff, allocate resources and determine funding source;

⇒ maintain a suitable response to the conclusion of the incident.

5. Inform ED and Minister as necessary.

6. Preparation of initial and ongoing situation reports.

7. The IC and Industry spokesperson should organize a verbal briefing (where feasible and deemed necessary) for industry as soon as possible.

8. Brief other relevant stakeholders. This may need to be done confidentially prior to release of information to the public.

A check list for key players is provided as appendix 1.

3.0 Appointment of key positions

As the incident progresses, the IC, in conjunction with the Program Manager and DFMS will select staff, to form an incident taskforce. These taskforce members may be selected at the initial taskforce meeting or subsequently as the need arises.

The size of the taskforce may vary considerably according to the incident. The positions of Communications Coordinator, Media Spokesperson, Extension Coordinator, Legal Officer,

Administrative Officer, Operations Manager, Mapping and Data Officer, Industry Liaison Officer, Industry Representative and Occupational Health and Safety Representative may all need consideration. For a description of the key taskforce appointments and their position descriptions see appendix 2.

4.0 Initial Taskforce Meeting

All key staff thought likely to be given tasks or who may be able to provide specialist advice should attend. These key staff may be sourced from outside of the Department. It is helpful, but not necessary, if discussions are held with nominated staff before the meeting commences. Discussions prior to the meeting may be necessary for a variety of reasons such as, to clarify who should attend the initial taskforce meeting, to enable preliminary research prior to the meeting, or to commence actions such as confirming the incident (e.g. disease testing).

To assist the IC, the DFMS or his nominee may chair the initial meeting while the IC takes the opportunity to appraise the situation.

It is preferable to hold in-person taskforce meetings but in some cases it may be necessary to run the meetings by teleconference. Appendix 3 outlines the procedure for establishing a teleconference.

A draft agenda for the initial meeting is outlined in appendix 4.

5.0 Use of Action Lists

Action lists will be used as the main delegation/minute taking/auditing tool and a pro-forma is provided in appendix 5. After the first meeting an action list should be prepared by the IC and forwarded to all taskforce members. All taskforce staff are responsible for completing their respective actions.

Where action lists are not completed due to work overload of an individual, it is up to the IC to ensure that the workload is redistributed.

6.0 Sample Chain of Custody Form

Where it is necessary to take samples all efforts should be made to complete the “Sample

Chain of Custody Form". This will ensure samples are accompanied by correct sample identification and may also be of use as evidence, in such an incident where prosecutions are possible.

7.0 Situation Reports

Situation reports will be used to provide regular updates to Departmental staff (including the Minister, ED and DFMS), other government agencies (including interstate and Commonwealth agencies where appropriate), and Departmental clients (including the media, industry, recreational fisheries, conservation groups and the general public). A pro-forma for a situation report is provided in appendix 6.

8.0 Subsequent Taskforce Meetings

Meetings are to be held regularly, as required. They should be kept brief, with the duration preferably no longer than one hour. Action lists are used as the basis of the agenda for future meetings. Difficult items should be deferred to working parties, so that they don't occupy valuable taskforce time.

See appendix 7 for a draft agenda and explanation of items for subsequent taskforce meetings.

9.0 Authority and Reporting

- The incident must be confirmed. In the case of an exotic disease, exotic pest or plant incursion, laboratory confirmation of the diagnosis will be required. Where possible, confirmation of the diagnosis must be received from the appropriate reference laboratory before any operational activity commences.
- The IC is responsible for all day to day operational matters. The IC reports to the relevant Program Manager, and DFMS.
- The IC's Program Manager will be responsible for ensuring that the IC has adequate support to carry out IC duties, and that the IC's substantive duties are covered as necessary. In addition, the Program Manager will ensure substitution of the IC if required.
- A list of key staff telephone numbers (including mobiles) should be compiled and made

available to the switchboard, taskforce members, and other relevant Departmental personnel.

- Electronic mail should not be relied upon for distribution of information to key players. If used and critical information is distributed in this manner, a reply confirming its receipt should be requested, or alternatively the information should also be distributed by facsimile or post, to ensure that the information reached its destination.

- Any legislative or administrative restrictions on the movement or sale of products or plants should be implemented as soon as possible after the incident so that the Department is seen to be decisive and effective in its actions. However, such action must only be taken after due industry consultation.

- Chemicals may require urgent registration as part of any emergency. This will be undertaken by the Operations Manager in conjunction with the Legal Officer. An application may need to be prepared and forwarded to the National Registration Authority.

- Where chemicals are to be handled, the Operations Manager in conjunction with the Legal Officer will ensure that material safety handling data sheets and other appropriate safety material is readily available to all taskforce members handling chemicals, prior to their use.

- All Departmental staff, not just those involved in the incident response, should be kept informed through situation reports (by email is adequate).

- Incident response decisions (e.g. need to quarantine, need to close fisheries, etc) will be made by the relevant Program Manager in consultation with the incident specialists.

- All final recommendations arising from an incident response must be agreed to by all incident team members and endorsed by the ED (or delegate) prior to public release.

- Where the appropriate level of response cannot be provided within the relevant program budget(s), the budget (physical and manpower resources) will be determined by the DFMS in association with the relevant Program Manager(s). Under normal circumstances, budget considerations should not constrain the emergency response.

- Where staff are taken from a Program to help with an incident, the donor project carries

the cost of the salaries but all operational costs are borne by the Program managing the incident. Provision to allocate Project activity numbers to incidents will be activated and time recording used so that incident costs can be tracked. A report of resources re-allocation will be provided within one month of the incident terminating.

- Where the initial emergency response phase converts to an agreed protracted response (e.g. an eradication program), resource requirements and contributions will be negotiated by the relevant Program Manager(s) and endorsed by the ED (or Delegate).

- An annual allocation of DBIF money ($100 000) has been approved by the Minister as contingency funding and can be accessed on short notice, subject to approval from the ED. These funds are to be used as transitional funds for use until other Program/Department funds and priorities are redirected, or funding is obtained from other sources. Appendix 8 contains a DBIF application with certain sections left blank for completion in the event of an emergency/incident. Any request to the ED to access this contingency funding must be accompanied by a completed DBIF application.

- An incident report in appropriate detail will be provided to the relevant Program Manager(s), DFMS and ED (or Delegate) within one month of the incident terminating.

10.0 Review and Closure of Incident

At some point (hopefully within two to three weeks of an initial response) the IC in conjunction with the DFMS and Program Manager needs to hold a taskforce meeting to review the operation and determine whether the emergency response should be terminated and long term management strategies put in place. Discussions should include:

(1) identification of long term management strategies to be put in place;

(2) formal termination of the emergency response phase;

(3) acknowledgment of the transfer from emergency management to ongoing incident management under the leadership of the relevant Program.

A final report, outlining the course and outcome of the incident should be prepared within one month of the emergency/incident response phase being terminated.

Appendix 1 - Checklist for key players

- ☐ Initiate procedures to achieve confirmation of the incident.
- ☐ Advise appropriate Departmental staff, stressing the confidentiality of the incident until its nature is confirmed.
- ☐ Confirm nature of incident.
- ☐ Arrange first meeting, select attending personnel.
- ☐ Select candidates for position of Incident Coordinator.
- ☐ Appoint Incident Coordinator.
- ☐ Register incident.
- ☐ Brief: Executive Director;
  - ☐ Minister;
  - Interstate and Commonwealth Agencies;
  - Industry;
  - others as required (including recreational fishers, conservation groups, general public etc).
- Categorise the incident.
- ☐ Follow guidelines for first taskforce meeting.
- ☐ Appoint Taskforce staff:
  - ☐ IC (may already be appointed)
  - Communications Coordinator
  - Media Spokesperson
  - Extension Coordinator
  - Administrative Officer
  - Legal Officer
  - Operations Manager
  - Mapping and Data Officer
  - Industry Liaison Officer

Industry Representative

OH & S Representative

☐ Allocate resources and assign project code.

☐ Brief appropriate Departmental staff and Industry.

☐ Plan for field activities.

Note: This checklist is provided as a guide and does not contain every action which may be required in responding to an emergency/incident. The checklist is not in any particular order.

Appendix 2 - Taskforce appointments and job descriptions

Incident Coordinator (IC)

The Incident Coordinator is the person responsible for coordinating the Department of Fisheries response to the incident.

The DFMS in consultation with the Program Manager will jointly decide on, and appoint, the IC.

The IC is selected and appointed prior to the initial incident meeting so that a specific person is responsible for the coordination of the incident response, even if it turns out to be a false alarm.

The IC is not necessarily the Program Manager, or the Department expert in the discipline concerned.

The IC will delegate duties and enlist the assistance of Departmental staff when required and ensure all tasks are completed.

Staff have to willingly accept the role of IC.

The IC is responsible for the preparation of the initial and ongoing situation reports.

The position and line of authority of the IC is to be accepted as a delegation of authority from the DFMS.

Communications Coordinator

The Media Liaison Officer from the Community Relations Branch normally holds this position.

All media inquiries should be directed to the Communications Coordinator. The Communications Coordinator will then direct the inquiry as appropriate to the Media Spokesperson, or will arrange for suitable written material (e.g. press releases, situation reports) to be sent to the person making the inquiry.

The Communications Coordinator and relevant Program Manager screen all material before it is released from the Department, to ensure that all written material is consistent in its policy

and content. This is particularly important if more than one staff member is producing information for the public or the media.

Media Spokesperson

One person, not necessarily the IC, is nominated to be the Media Spokesperson. In some cases, it may be necessary to have one spokesperson located in Perth and also another spokesperson on site in the region to deal with the local media. If this situation arises it is imperative that both spokespersons have a consistent message, and use only facts and situation reports that have already been used to brief the ED and the Minister and which have been released. New developments must not be discussed publicly until the taskforce has been informed, and the IC has had an opportunity to consider the ramifications. No one else should talk to the media.

Extension Coordinator

The Extension Coordinator will be required to assist the IC with the preparation and distribution of situation reports, extension brochures, and respond to general enquires from the public.

The Extension Coordinator establishes a complete circulation list for persons and organisations that must be provided with situation reports and briefings.

All Departmental staff involved in the incident, as well as other Departmental staff should be kept informed of the situation and supplied with situation reports. Situation reports should be dated and numbered.

Administration Officer

If the taskforce appoints an Administration Officer, it is the role of the Administration Officer to:-

- establish a cost centre/Axiom code if required;
- distribute situation reports (if necessary);
- assist the Extension Coordinator with any mailouts;
- provide additional administrative support as required.

Legal Officer

This taskforce member will need to ensure that all actions are in accordance with the relevant legislation, and where appropriate Ministerial declarations, Proclamations, or Regulations may need to be drafted.

Operations Manager

Manages the field program, supervises field staff and develops sampling programs where necessary.

Mapping and Data Officer

Ensures that data is up to date and provided in an easily understandable form either on hard copy maps, digital maps or computer print-outs.

Industry Liaison Officer

Where appropriate, an Industry Liaison Officer is appointed to ensure that contact is made with industry throughout the incident response on a regular basis. The officer keeps the industry informed of any developments, and ensures that the concerns of industry are relayed to the IC.

Industry Representative

Where appropriate, an industry member with a significant interest (primary or third party) or specific expertise in the incident should be given the opportunity to nominate a representative to assist the incident management team. In addition, the spokesperson for the industry concerned (usually the Executive Officer of the relevant association) can invite industry members to attend meetings of the incident management team.

Occupational Health & Safety Representative (OH&S)

Where deemed necessary the OH & S Representative ensures staff are adequately trained, clothed and supervised. Ensures equipment is safe to operate. Is involved in accident investigation and hazard control. Liaises with IC to resolve any OS&H issues which arise.

Please note that not all these positions may be required for every incident.

Appendix 3 - Teleconferences

1. Find a telephone which can be used for Conferlink calls (hands free), so it must have a speaker button. Remember to check beforehand that the telephone works. To answer calls pick up normally and when ready for hands free → press speaker → replace handset. When call has finished, pick up handset and replace.

In Head Office, speaker telephones are situated in the Meeting Room No 2 and the Conference Room and if neither one is available you may negotiate with the DFMS to use his/her office.

2. Organise a date and time with teleconference attendees.

3. Book room for teleconference.

4. Fill in the attached booking form and fax to 1800 636 776 at least 24 hours beforehand. If URGENT Telstra may be able to organise one within 15-20 minutes, however this is not guaranteed.

5. Confirm time and date with attendees.

6. Send agenda beforehand if necessary, listing teleconference attendees.

Note: Cancellations require a minimum of one hours notice.

Additional hints:

- The teleconference may be billed to any telephone number.

- Identify the Chairperson as soon as the teleconference commences. The Chairperson will ensure that all attendees adhere to the agenda. Additional issues should be deferred to the end of the planned agenda.

- At the beginning of the teleconference a help telephone number and booking reference will be given, ensure you record this.

Booking Form

ConferLink®

FREEFAX™ ***1800 636 776****
FREECALL™ ***1800 011 080****

Email: conferlink@telstra.com.au
Internet: www.conferlink.telstra.com.au

Page 1 of _____

INTERNAL USE ONLY
Reservation Number #.....

COMPANY / CONTACT DETAILS

Company Name _____

Division / Department _____

Address _____

Postcode _____

Contact Name *Mr/Mrs/Ms* _____

Contact Phone _____ Contact Fax _____

Contact Email Address _____

CONFERENCE DETAILS

Date of Meeting	**Start Time**	**Time Zone**	Number of Lines	**Duration**
/ /				

Single point charging: ** ❑	**Individual charging: **** ❑
Charge Number:(____)_____	Charge Number:(____)_____ *(Number for all miscellaneous fees to be charged to)*

ConferLink Type (Please Tick)	**ConferLink Managed Conference**					
	ConferLink Call Out	❑	Customer Call In	❑	Mixed Mode	❑
	Customer Managed Conference					
	Customer Call In With Pincode	❑	Readycall Standard	❑	Readycall Premium	❑
Billing Option (Call In only)	FREECALL™ Access	❑	Metered No. Access			❑

** Call from mobile phones will be charged at the applicable mobile rate. ** Must be an Australian fixed telephone number.*

OPTIONAL FEATURES *(Please Tick)* Page 2 of _____

Connect Chairperson : ***ConferLink Managed Calls Only***	First ❑ Last ❑

Taping: $20/tape ***ConferLink Managed Calls Only***	Yes ❑ No ❑ Number of tapes..... **Tones will be switched off unless indicated here** ❑	
Send tape to:	ATTENTION :	
	ADDRESS:	

Ring Back Price ($2) ❑

The following are only available on ConferLink Managed Calls

Roll Call required	No ❑	Yes❑	Sub-Conferencing		❑
Playback Tape($20/tape)		❑	Conference Securing		❑
Fax Back Price ($5)		❑	Continuous Audio Monitoring ($100/hr)		❑
Fax Back Confirmation($5)		❑	Polling *(Ask Reservations for a Booking Form)*		❑
Listen-Only		❑	Question Queuing*(Ask Reservations for a Booking Form)*		❑

PARTICIPANT DETAILS

	Name	**Business Title**	**Phone Number**
Chairperson			
2.			
3.			
4.			
5.			
6.			

If you have more participants, please attach a separate sheet

Name *(Please print)* _____

Signature _____

Cancellations

Cancellations of bookings require a minimum of one hour's notice before the scheduled connection time of the conference for no penalty fee to be incurred. If a cancellation is made within the hour or a participant doesn't present to the conference, a fee equal to the set up fee (as for ConferLink Call Out conferences) will be charged per line booked but not used or amended.

PARTICIPANT DETAILS (continued)

	Name	Business Title	Phone Number
7			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			

Appendix 4 - Draft Initial Meeting Agenda

1. Introductions

DFMS or delegate will:

- identify him/herself as the person in charge and responsible for any decisions made with regard to the incident;
- introduce all people present;
- provide a brief overview of why everybody has been called to the meeting;
- explain the ground rules for running the taskforce.

2. Incident Briefing

Outline history and situation of incident.
Confirm incident.
Confirm identity of causative agent.

3. Taskforce appointments

IC (may already be appointed)
Communications Coordinator
Media Spokesperson
Extension Coordinator
Administrative Officer
Legal Officer
Operations Manager
Mapping and Data Officer
Industry Liaison Officer
Industry Representative
OH & S Representative

4. Actions

At the end of each item, somebody should be nominated to "action" the item.

An action list is to be kept, and this will form the summary of the meeting. Items for action may include:

- Chemical registration.
- Movement controls for produce
- Is legislation adequate?
- Closure of fishery(s)/zones
- Gazettal of areas.
- Gazettal of inspectors.
- Confirmation of powers.
- Declaration of pests.
- Briefing Note for Ministers Office.
- Determine an appropriate cost centre.
- List key industry contacts.
- Determine information to be provided by way of situation exports, press release and extension material.
- Create a distribution list for extension material.
- Brief AQIS if necessary.
- Establish initial quarantine/restrictive zone, if necessary.
- Establish outbreak effect on intra and inter state movements.

The action list should be distributed to taskforce members as soon as possible after the meeting.

5. **Contact numbers** - prepare a telephone list for taskforce members, including after hours numbers and mobile numbers.

6. **Activate field operations** if necessary.

7. **Other Business**

8. **Next meeting**

Appendix 5 - Action List

[Name of Incident] ACTION LIST

Date of Meeting: _____

Location of Meeting: _____

Time & Duration of Meeting: _____

Instructions	Who to complete task	Task completed	Comments
NEXT MEETING:_____			

Fish Health Case Number:
(*FISH HEALTH LAB ONLY)*

Appendix 6 – Sample Chain of Custody

Your File Ref:	**From:**	**Release Signature**	**Release Date**	**Delivered By (circle)** **Courier** **In person** _____
Your File Ref:	**To:**	**Receipt Signature**	**Receipt Date** **Signature**	
Samples handed over (Description and number)				
Your File Ref:	**From:**	**Release Signature**	**Release Date**	**Delivered By (circle)** **Courier**

				In person _____
Your File Ref:	**To:**	**Receipt Signature**	**Receipt Date**	
Samples handed over (Description and number)				

Appendix 7 - Situation Reports

Department of Fisheries
[PROGRAM]
3rd Floor SGIO Atrium
168 - 170 St George's Terrace, Perth 6000
Tel (09) 482 7333 Fax (09) 482 7390

SITUATION REPORT NO [X]
[DATE, TIME]

[INCIDENT TITLE]

Background

Current Action

[Any action required by industry should be highlighted in bold]

[NAME IC]
Incident Coordinator

Appendix 8 - Meeting Format For Subsequent Meetings

Agenda

1. Situation Report

Copies of all new written material should be distributed at the beginning of the meeting. Email or distribute to participants prior to meeting if possible.

2. Completed Actions

The IC summarises the present situation and then reviews the Action List from the previous meeting outlining all the items that he/she knows have been completed. Any items not completed, apart from those requiring progress reports, are deferred until later in the meeting.

Each other taskforce member then contributes, by advising of any items that they have completed.

3. Incomplete Actions

Using the Action List generated from the previous meeting, the IC determines which items have not been completed. These are now entered into a new Action List with today's meeting date. If it is apparent an individual has too many tasks, their workload should be distributed to others.

4. Other business

5. Next meeting

Note: The IC is responsible for providing a copy of the Action List generated from the meeting. This should be done immediately after the conclusion of the meeting. Updated Action Lists are distributed to taskforce members or other personnel who have actions to complete.

Appendix 9 - DBIF Application for Contingency Funding

PART A
ADMINISTRATIVE SUMMARY

1. PROJECT TITLE

Contingency funding for activities that arise through emergency/incident responses by Fisheries WA.

2. APPLICANT

Organisation: Fisheries WA
Unit: Fisheries Management Services
Postal Address: Locked Bag No. 39
Cloisters Square Post Office
PERTH WA 6850
Physical Address: Level 3
SGIO Atrium
170 St Georges Terrace
PERTH WA 6000
Phone: (08) 9482 7333 Facsimile: (08) 9481 3576

3. ADMINISTRATIVE CONTACT

Name: Bob Williams
Position: Divisional Administrator (Fisheries Management Services)
Organisation: Fisheries WA
Unit: Regional Services
Postal Address: as above
Physical Address: Level 4
London House
216 St Georges Terrace
PERTH WA 6000
Phone: (08) 9426 7346 Facsimile: (08) 9321 8917

Financial Contact *(if different form above)*

Details as above

Name:
Position:
Organisation:

Unit:
Postal Address: Physical Address:
Phone: Facsimile:

4. PRINCIPAL INVESTIGATOR (if applicable)

Not Applicable

Name:
Position:
Organisation:
Unit:
Postal Address: Physical Address:
Phone: Facsimile:

CO-INVESTIGATOR (if applicable)

Not Applicable

Name:
Position:
Organisation:
Unit:
Postal Address: Physical Address:
Phone: Facsimile:

5. PROJECTED COMMENCEMENT AND COMPLETION DATE

Commencement Date: 1 July 1999

Completion Date: 1 July 2004

Note: - It is expected that the total annual balance of $100 000 will be "topped up" at the beginning of each financial year.
- The Minister approved the principle of maintaining $100 000 through DBIF on 10 June 1999 (refer to attachment 1).

6. PROJECT BUDGET SUMMARY *(Summarise the detailed budget provided at Part C)*

Contribution by the DBI

Year	Salaries	Travel	Operating	Capital	Total
99/00			100 000		
Total			**100 000**		**100 000**

Note - The estimated contribution from DBI to salaries, travel, operating and capital will be specified in individual submissions to the Executive Director, requesting access to the funds.

Contribution by the Applicant

To be advised *

Year	Salaries	Travel	Operating	Capital	Total
99/00					
Total					

Contribution by Other Sources (also refer Part D)

To be advised *

Year	Salaries	Travel	Operating	Capital	Total
99/00					
Total					

***** The details of the contributions by the applicant and other sources will be specified when individual submissions are made to the Executive Director, requesting access to the funds.

BUDGET TOTAL: $100 000

CERTIFICATION

The Principal Investigator and the person acting for and on behalf of the Applicant certify that all function contained in and forming part of this application to the DBI MAC is complete, accurate and provided in good faith at the date given to the Committee and that any changes to the information will be notified to the DBIMAC as soon as possible.

Signed by the Principal Investigator

Not applicable

Signed for and behalf of the Applicant

Peter Millington
Director of Fisheries Management Services

(Signature and Date)

PART B
PROJECT DESCRIPTION

1. PROJECT IDENTIFICATION

Project Field: Contingency Funding

Key Areas: The allocation of contingency funds for activities that arise through emergency/incident responses by the Department of Fisheries.

(Species): To be advised when individual submissions to the Executive Director are made, requesting access to the funds.

2. BACKGROUND

During 1999 the Department has responded to three emergency/incident situations, the pilchard mortality event, the *Thelohania* disease outbreak in yabbies and the black striped mussel incursion. The cost of the Department response to these events has totaled in the order of $460 000 ($290 000 for pilchards, $120 000 for yabbies and $50 000 for black striped mussel). These costs have been met from within existing budget allocations and have directly affected a number of other projects.

These events have highlighted the need for the Department to allocate contingency funding which can be accessed on short notice, subject to approval by the Executive Director. These funds would be used as transitional funds for use until other program/Department funds and priorities are redirected, or funding is obtained from other sources.

3. NEED

The Department has a responsibility to respond to emergencies/incidents which threaten Western Australia's fisheries, aquaculture and aquatic environment. These incidents may include responding to aquatic pest incursions (marine and freshwater), disease outbreaks in wild stocks, disease outbreaks in aquaculture, fish kills and oil and chemical spills.

Emergency/incident response is considered a core business of the Department as it protects commercial and recreational fisheries, fish habitats and the aquaculture and pearling industry.

The current structure of the agencies budget requires the allocation of expenditure to particular projects and there is no facility within the structure to provide for contingency funding. Hence, the allocation of contingency funds through DBIF is the only avenue currently available to provide these finances.

This application requests the allocation of a total annual balance of $100 000 for 5

years (99/00 till 03/04). The end of financial year balance, will be "topped up" at the beginning of each successive financial year, to maintain the annual available balance of $100 000.

4. OBJECTIVES

- Maximise the agencies ability to respond to emergencies/incidents.
- Provide flexibility for obtaining funds to respond to emergencies/incidents.

5. INDUSTRY AND MANAGEMENT CONSULTATION

To be advised when individual submissions to the Executive Director are made, requesting access to the funds.

6. DIRECT BENEFITS AND BENEFICIARIES

The benefits of emergency/incident response can be broadly stated as the conservation of Western Australia's fisheries, aquaculture and aquatic environment. Depending on the type of emergency/incident the beneficiaries may be diverse. Potential beneficiaries include the commercial fishing industry (e.g. protecting wild fish stocks from disease), the recreational fishing community (e.g. protecting wild fish stocks from toxic algal blooms), the aquaculture and pearling industry (e.g. introduced species fouling aquaculture structures), and the general community (e.g. preserving habitats which may be altered through the introduction of exotic species).

Direct benefits and beneficiaries for individual emergencies/incidents will be provided when individual submissions to the Executive Director are made, requesting access to the funds.

7. FLOW OF BENEFITS

To be advised when individual submissions to the Executive Director are made, requesting access to the funds.

Fishery (including aquaculture) Managed by:	Commercial Sector	Recreational Sector	Pearling & Aquaculture	Fish & Habitat Protection

8. FORM OF RESULTS

After the incident has been managed, the incident coordinator will prepare a

final report, outlining the course and outcome of the incident.

9. EXTENSION OF RESULTS

The extension of the results will depend on the nature of the incident but may include extension by the Department, the recreational fishing community or conservation groups such as the Marine and Coastal Community Network.

10. RISK ANALYSIS

The threat to achieving the objectives would be in the event of multiple emergencies/incidents within one financial year. In such an event the total available funds of $100 000 may not be adequate to cover the contingency expenses from the multiple events.

11. METHODS

To be advised when individual submissions to the Executive Director are made, requesting access to the funds.

12. PERFORMANCE INDICATORS

- Applications to access the funds shall be submitted in the appropriate format by completing the gaps in this general application [Part A (6), Part B (1, 5, 6, 7, 11, 16), Part C (all), Part D (all)].
- A final report, outlining the course and outcome of the incident will be produced following the completion date of the emergency/incident response. The completion date shall be agreed to by the Incident Coordinator and the Executive Director.

13. MILESTONES

- The final report will be produced within 6 weeks of the completion date of the emergency/incident response.
- A summary of the DBIF expenditure for the project will be produced in the annual report.

14. OTHER RELATED PROJECTS (if applicable)

- The development of a Department of Fisheries Generic Emergency/Incident Response Plan.

15. FACILITIES

Not applicable.

16. STAFF

To be advised when individual submissions to the Executive Director are made, requesting access to the funds.

Name	Position	Qualifications	Time

PART C
PROJECT BUDGET

Part C will be completed when individual submissions to the Executive Director are made, requesting access to the funds.

Project Agreements shall normally cover the life of the Project. The budget should be a realistic reflection of costs.

1. PROJECT STAFF

Provide estimates of, and justification for, salaries and on-costs. Direct on-costs should notice normal allowances and actual costs such as payroll tax, and workers compensation payments. Accruing on-costs such as long service leave, sick leave, etc. should not be included. All leave should be taken within the period of the project. Consultancy fees or fees paid to another organisation should be included under Operating. REFERS ONLY TO FUNDS BEING REQUESTED FROM THE DBI FUND.

Year	Name	Position	Salary	On Costs
99/00				
Total Salaries				

2. PROJECT STAFF JUSTIFICATION

Year	Name	Justification
99/00		
Total Salaries		

3. TRAVEL

Include details of and justification for all planned level. REFERS ONLY TO FUNDS BEING REQUESTED FROM DBI FUND.

Year	Fares	Allowances	Accommodation	Other	Description
99/00					
Total Travel					

4. TRAVEL JUSTIFICATION

Year	Justification
99/00	

5. OPERATING COSTS

List all expendable items, ie. those having no residual value after 1 year. Do not use categories such

as general stores or miscellaneous. Provide justification for items in excess of $1,000. REFERS ONLY TO FUNDS BEING REQUESTED FROM THE DBI FUND.

Year	Description	Amount
99/00		
Total Operating Costs		

6. OPERATING COSTS JUSTIFICATION

Year	Description	Justification
99/00		

7. CAPITAL

List and provide Justification for all capital items. Capital items may remain the property of the DBI Fund until the completion of the Project at which stage future ownership shall be determined. REFERS ONLY TO FUNDS BEING REQUESTED FROM THE DBI FUND.

Year	Description	Amount
99/00		
Total Capital		

8. CAPITAL JUSTIFICATION

Year	Description	Justification
99/00		

9. 99/00 CONTRIBUTION BY APPLICANT

Include normal infrastructure costs attributable to the project with respect to core staff, facilities, vessels and administrative support. Detail and justify method of calculating contributions.

Year	Description	Amount
99/00		
Total Contribution		

10. CONTRIBUTION BY APPLICANT JUSTIFICATION

Year	Justification
99/00	

11. CONTRIBUTION BY OTHER SOURCES

Include normal infrastructure costs attributable to the project with respect to core staff, facilities, vessels and administrative support. Detail and justify method of calculating contributions.

Name other government and private investors from which funds are being sought or are currently being received. Advise the consequences of such funding not being available. Do not include industry research levies paid to the DBI Fund under legislation. Information on alternative funding sources is

available from the FRDC.

Year	Contributor	Salaries	Travel	Operating	Capital
99/00					
Total Contributions					

CONTRIBUTION BY OTHER SOURCES JUSTIFICATION

Year	Name	Justification
99/00		

12. INTELLECTUAL PROPERTY

Detail and value any direct or related intellectual property owned by the applicant , the DBI MAC and/or other organisations at the commencement of the project. Detail the methods of calculating the value of such intellectual property. The rights to, and benefits derived from, intellectual property shall be based on the relative value of contributions made to the project as determined and agreed at the commencement of the project, and incorporated in Project Agreement.

DBI MAC policy is to make project results available in the public domain unless, in accordance with the Project Agreement, the parties agree to protect any intellectual property arising from the project. Such protection may be by way of applying for registration of a patent, design, trademark, etc. or such other means as the parties may agree.

PART D
SUPPLEMENTARY INFORMATION

Part D will be completed when individual submissions to the Executive Director are made, requesting access to the funds.

1. MULTI-SECTOR BENEFITS

Development and Better Interest Funds are available for proposals which benefit a number of industry sectors.

A) Which sectors of the fishing industry will benefit from this proposal? List sectors and briefly outline likely benefits.

_____
_____
_____
_____

B) Which fishing industry Ministerial Advisory Committees (MACs) have been contacted regarding this proposal? List MACs contacted, level of contact and degree of support.

MAC	*LEVEL OF CONTACT*	*DEGREE OF SUPPORT*

Applicants should be aware that the proposal will be submitted to relevant MACs for comment.

2. CO-FUNDING

The Development and Better Interests Ministerial Advisory Committee favours proposals that are able to demonstrate financial support from industry and/or that are likely to obtain financial support from industry.

A) Outline the total cost of the proposal, the level of funding sought from the Development and Better Interest Fund and funds sought (or received) from other sources.

TOTAL COST: _____

FUNDS SOUGHT FROM DBIF: _____

FUNDS FROM OTHER SOURCES

1) SOUGHT _____
_____

2) ALREADY RECEIVED _____
_____

B) Is the proposal likely to obtain financial support from industry in the future (eg. a pilot project) or likely to provide leverage for funds from other sources?

_____
_____
_____