

DRAFT AUSTRALIAN EMERGENCY MARINE PEST PLAN

“The commander who loses a battle makes but few calculations beforehand. Thus to do many calculations leads to victory, and few calculations to defeat: how much more no calculation at all! It is by attention to this point that I can foresee who is likely to win or lose.” (Sun Tzu on the Art of War (circa 500 BC))

The Draft Australian Emergency Marine Pest Plan (EMPPPlan) provides a detailed guide on how to conduct a staged response to an introduced marine pest emergency. The general policy behind the key decision making and operational structures is based on well-established mechanisms in the area of responses to emergency animal diseases (AUSVETPLAN, AQUAVETPLAN).

A key to improving the chances of a successful response to any pest incursion is early detection and reporting. The investigation phase of this protocol places strong emphasis on detection and reporting of suspected outbreaks or other emergencies by the public and field staff. Although many of these reports may not prove to be emergencies, the need to follow a process including feedback, encourages an alertness in both the community and staff that may provide early warning of any serious marine pest emergency.

The response to any marine pest emergency is run from within the Commonwealth/State/Territory jurisdiction where it occurs. However this will be enhanced through national coordination to provide advice and other assistance that may be required for a successful response.

This draft plan operates under the direction of a national consultative body called the Consultative Committee on Introduced Marine Pest Emergencies (CCIMPE). CCIMPE determines what constitutes a national introduced marine pest emergency and applies established tests to determine whether national cost sharing mechanisms will be invoked. Proposed cost sharing arrangements are discussed in sections 3.3 and 4.3.2 of the report.

CCIMPE also monitors progress throughout the emergency response phase and makes the final decision on when the emergency phase of response is completed. However, most of the procedures contained within the plan can be equally applied on an appropriate scale for more localised responses.

Marine pest emergencies may differ from animal disease emergencies in the scale of the emergency phase of a response. In many cases, emergency responses will be limited to quarantine and containment actions while the extent of spread of the pest and possible responses are determined. The response may then switch to longer-term management actions.

This manual is designed to guide those involved in an emergency response through the process. It is a “how to” guide spelling out roles and responsibilities, reporting lines and verification processes for different elements of a coordinated response. Like any response protocol these need to be trialed and refined. This will enhance the effectiveness of the plan and ensure that those involved are informed and also able to contribute to applying the protocol effectively within their jurisdictions and situations.

The draft EMPPlan outlines the four phases of an emergency response; investigation, alert, operation and stand-down, and elaborates on roles and responsibilities of the individual officers, state organisations and national bodies throughout the phases of the emergency response. Guidelines are also provided for establishing operational control centres. These have been adapted from established emergency response management frameworks for other situations.

DRAFT AUSTRALIAN EMERGENCY MARINE PEST PLAN

EMPPlan

1999

Part 1 Control Centres Management Manual

Establishing and managing control centres:

The manual is structured so that staff at all levels can quickly identify from the contents page what tasks they are expected to perform

EMPPlan is a series of technical response plans that describe the proposed Australian approach to a marine pest emergency event. The documents provide guidance based on sound analysis, linking policy, strategies, implementation, coordination and emergency management plans.

This Management Manual forms part of:

EMPPlan Edition 1.0

This document will be reviewed regularly. Suggestions and recommendations for amendments should be forwarded to the EMPPlan Coordinator (see Preface).

Record of amendments to this manual

[Insert record of amendments as necessary]

PREFACE

The National System for the Prevention and Management of Marine Pest Incursions, an outcome of the Joint SCC/SCFA National Taskforce on Prevention and Management of Marine Pest Incursions, will be implemented through an emergency response framework and other actions to prevent and manage introduced marine pests.

To ensure national coordination of the emergency response arrangements negotiated by the Taskforce between the Commonwealth and States/Northern Territory, a series of emergency response documents is to be prepared by the National Office of Animal and Plant Health, Agriculture, Fisheries and Forestry-Australia. This Draft Emergency Marine Pest Plan is the first component of the emergency response framework.

This **Control Centres Management Manual** is central to the implementation of EMPPlan and therefore contains references to other EMPPlan documents.

EMPPlan complements the existing AUSVETPLAN and AQUAVETPLAN series of manuals that were designed to address emergency diseases in terrestrial and marine environments.

In addition, Action Plans for Commonwealth/State/Northern Territory jurisdictions will be drafted for management of marine pest incursions as described in Appendix 1 of this EMPPlan. It is likely that there may be many individual Action Plans required within Australia. The obvious place to start is with the six States and the Northern Territory. Plans for Commonwealth land and waters, such as Commonwealth components of Marine Parks, the Australian Antarctic Territory and other external territories will follow.

This manual will be reviewed regularly as a result of testing in exercises and workshops. Recommendations for amendments should be forwarded to:

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This manual was adapted from the equivalent manual in AUSVETPLAN and AQUAVETPLAN. The format and content have been kept as similar as possible. This is to enable emergency managers and other officers trained in AUSVETPLAN and AQUAVETPLAN procedures to work efficiently with this document in the event of a marine pest emergency.

The work of the AUSVETPLAN and AQUAVETPLAN writing teams and the permission to use the original documents is gratefully acknowledged.

The writing group was responsible for drafting this manual. However, the text may have been amended at various stages of the consultation/approval process.

Other people not listed above may also have made contributions and the assistance of all involved is gratefully acknowledged.

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1. INTRODUCTION

An emergency response to a marine pest incursion places heavy demands on authorities at local, State/Territory and Commonwealth levels. EMPPlan anticipates the scientific, logistic and managerial resources that authorities need to prepare for and respond to a marine pest incursion emergency.

1.1 Aims and uses

This manual, the Control Centres Management Manual, provides a description of the procedures, management structures and roles to be implemented in the event of a suspected or actual marine pest emergency. It is a general manual intended for use by all jurisdictions:

- in **operations** either as the primary manual or as a detailed reference to back up State/Territory action plans (Appendix 1)
- in **planning** as the basis for the development of more specialised procedures
- in **training** as a key reference.

This manual is intended as a resource from which action plans can be developed for particular functions and types of pest. For example, the manual is a detailed guide to the types of personnel and resources that authorities would need to access in an emergency. However the actual lists of resources, stores and personnel contact details require frequent updating and belong in the appropriate State/Territory emergency marine pest action plans (Appendix 1).

1.2 Structure of this manual

Section 1 of this manual is an overview and provides context.

Section 2 is protocol that establishes the actions associated with marine pest emergency management roles. Personnel adopting these roles can follow the actions they are required to perform at each stage of activation of the response to a marine pest emergency, culminating in setting up special pest control centres.

Sections 3 to 6 then describe the management of pest control centres including:

- operations at infested sites
- emergency management at local, regional, State/Territory and Commonwealth levels.

Other sections contain a glossary, list of abbreviations and various appendices.

1.3 Coordination context

To ensure adequate support with personnel, equipment and other resources there will be need for coordination at national, State/Territory and regional levels.

The combat agency is most likely to be a State government agency and the Consultative Committee on Introduced Marine Pest Emergencies (CCIMPE) will provide a communication and support role. For ease of presentation a model structure in which the

hierarchical order is Commonwealth (CCIMPE) – State – region – field has been adopted. **In many States/Territories the activities described in the manual as *regional* would occur at the State/Territory level.**

1.4 Use of roles

The manual is structured so that staff at all levels can quickly identify from the contents page the tasks they are expected to perform in the initial phases and during pest eradication or control operations.

In many cases it has been necessary to describe a role as though it requires one person to perform it. That person is usually described as a *director, officer-in-charge, coordinator, controller* or *manager*.

The roles described can be merged or split to an extent that depends on:

- the nature and size of the outbreak
- the availability and capability of personnel
- the progress of the campaign.

Usually more merging occurs as people become experienced and when a campaign is winding down. Decisions as to which tasks may be merged or split require managerial skill that will be learned in exercises or operations.

1.4.1 A short guide to roles described in this manual

1.4.1.1 CR – CCIMPE Representative

The CCIMPE Representative (CR) is the State/Territory representative on the Consultative Committee on Introduced Marine Pest Emergencies (CR). This Committee is a national coordination body, as outlined in Section 5. Each CR is responsible for overall management of marine pest emergencies in their State/Territory.

1.4.1.2 FO – Field Officer

Field Officer (FO) refers to any regionally based departmental field officers such as fisheries officers. The FO may be the first point of contact in receiving news of an exotic marine organism. The same officer may be directed to conduct an initial inspection of the suspect site and assist in further operations. Other FOs may be called on to provide assistance such as notifying stakeholders during an outbreak.

1.4.1.3 OPCC controller

The OPCC controller will preferably have will preferably have public relations, emergency management and marine operations experience relevant to the site of the outbreak. The OPCC controller is the officer the CR places in charge of the **Operational Pest Control Centre** (OPCC, Section 3) which implements the pest control operations in the vicinity of an outbreak. The OPCC controller is responsible for the operational direction of the pest control campaign in the vicinity of an outbreak.

1.4.1.4 RCO – Regional Contact Officer

The Regional Contact Officer (RCO) will preferably have public relations experience and specialist knowledge of marine pests. The RCO collates reports of exotic marine

organisms directly from the community or via a FO. There may be only one RCO in the State/Territory.

The RCO's primary responsibility is to act as an identifiable central contact point to facilitate a marine pest emergency **detection system**, principally via community and agency awareness and reporting (and potentially, to promote other forms of community participation in marine pest management such as weeding campaigns). A detection or early warning system generating reports of marine pest sightings is implicit in Sections 2.1.1 to 2.1.3, which describe how it would operate in the event of an emergency by channelling all reports to the RCO, but this manual does not explicitly define the system.

Other, related RCO responsibilities are to:

- collate and analyse marine pest information
- assess reports to identify those that may require more investigation
- alert the CR to suspected marine pest emergencies.

1.4.1.5 REM – Regional Emergency manager

The Regional Emergency Manager (REM) will preferably have emergency management experience and specialist knowledge of disease or pest emergency procedures. The REM is responsible for emergency management operations in the region affected by an outbreak. This could be the RCO or a specialist emergency manager, and there may be only one REM in the State/Territory. Hence the REM has specific functions related to the region but could also be the officer the CR puts in charge of running:

- a single OPCC where the outbreak in the region is of limited extent
or
- coordinating the running of several OPCCs where there is more than one outbreak site in the region
or
- the **Strategic Pest Control Headquarters** (SPCHQ, Section 4), the strategic decision making body of the pest control campaign.

1.4.1.6 SPCHQ director

The SPCHQ director will preferably have emergency management experience and specialist knowledge of disease or pest emergency procedures. The SPCHQ director is the officer the CR places in charge of the SPCHQ and is responsible for administrative functions delegated by the CR relevant to the strategic direction of the pest control campaign.

1.5 Overview of the protocol

1.5.1 Investigation Phase – Early warning

- An FO or a member of the public may provide the initial report of a suspected marine pest emergency. The RCO will collect all relevant information.
- The RCO will make an initial assessment and report to the State/Territory CR to provide an initial picture of the pest situation at infested sites.

See Section 2.1 for further detail.

1.5.2 Alert Phase

- The CR will instruct the REM to send an investigation team to the infested site(s), including scientific officers/scientists with relevant diagnostic expertise.
- The CR and REM will take steps to establish site-specific OPCCs (see Section 3) and the SPCHQ (see Section 4).

See Section 2.2 for further detail.

1.5.3 Operations Phase

- In the affected region the CR may nominate the REM to directly control the OPCC, depending on the scale of the outbreak. In any case the REM will liaise closely with the regional police disaster coordinator who will take the necessary actions to call on other support services as required under the State/Territory emergency plan.
- At the State/Territory level, the CR will delegate direction of the SPCHQ and will coordinate the eradication/control campaign via the SPCHQ. The CR will liaise with the coordinator of State emergency services and other supporting agencies as necessary.
- The coordinator of State emergency services will provide a liaison officer at the SPCHQ and coordinate input from all State/Territory emergency services and supporting agencies from the State emergency operations centre.
- At the national level, the CR will liaise with CCIMPE, which acts in a support role and to coordinate cross-jurisdictional response actions.

See Section 2.3 for further detail.

1.5.4 Stand-down Phase

- Relevant officers will notify stakeholders of the stand-down as appropriate. Managers will need to ensure resources match but do not exceed actual operational requirements.

See Section 2.4 for further detail.

2. PROTOCOL – BY STAGES OF ACTIVATION

2.1 Investigation or early warning phase

The *Investigation Phase* exists when fisheries or environment protection authorities investigate a report of a marine pest sighting. The initial notification of a suspected marine pest sighting is likely to be received by a FO or the RCO who must collect as much information as possible for the RCO to make an initial assessment of whether there are grounds to suspect a marine pest emergency.

Key points

- ◆ Once an investigation begins, all officers start using a log book to record phone calls messages and contacts.
- ◆ The RCO completes an EMPPlan Initial Reporting Form (see Appendix 2) for every reported sighting to consolidate standard information.
- ◆ If the RCO suspects a marine pest emergency exists the RCO notifies the State/Territory CR. In some cases the FO may notify the CR directly.
- ◆ The CR decides whether to proceed to the Alert Phase of EMPPlan.

2.1.1 Sources of reported sightings other than FOs

There are many possible sources of reported sightings apart from FOs, including:

- other departmental officers
- participants in State/Territory awareness and monitoring programs
- marine farmers
- fishermen
- divers
- port authorities
- community groups
- general public
- other sources, eg processing plant, fish markets.

2.1.2 Actions to be taken by the FO

For every sighting reported to the FO, the FO must collect all relevant information, send it to the RCO and stand by for further instructions from the RCO. **In the vast majority of cases there will be no confirmation of a marine pest emergency. That is false alarms are to be expected in a majority of cases.** False alarms must not be discouraged as they provide valuable basic information and prove the system is working.

For every reported sighting including false alarms the FO must:

- Collect details of sites, the type and preliminary assessment of distribution of the suspected marine pest as well as relevant on-site contact details as set out on the EMPPlan Initial Reporting Form (see Appendix 2).
- Fax, e-mail or otherwise transmit this information to the RCO within 24 hours of the reported sighting. In any case the FO must contact the RCO within 24 hours of the reported sighting. If the RCO is unavailable the FO must contact the CR instead.
- Commence use of a log book recording phone calls messages and contacts.
- If possible, arrange for collection and preservation of specimens
- Be prepared to act further as instructed by the RCO.

See Section 2.2.1 for further details.

2.1.3 Actions to be taken by the RCO

For every reported sighting the RCO must collect all relevant information, investigate the report and analyse and evaluate all relevant information. **In the vast majority of cases there will be no confirmation of a marine pest emergency. That is false alarms are to be expected in a majority of cases.** False alarms must not be discouraged as they provide valuable basic information and prove the system is working.

2.1.3.1 Following a reported sighting

To encourage reporting, for every reported sighting including false alarms the RCO must:

- Contact the person who initially reported the sighting within 7 days of their report to give them an account of its results.

For every reported sighting including false alarms the RCO must immediately:

- Collect details of sites, the type and preliminary assessment of distribution of the suspected marine pest as well as relevant on-site contact details by completing a EMPPlan Initial Reporting Form (see Appendix 2)
- Commence use of a log book recording phone calls messages and contacts.
- Arrange for an FO or other appropriate officer/scientist to collect a full range of specimens within 3 days of the reported sighting and immediately transfer them to a laboratory for diagnosis.

2.1.3.2 If a the RCO suspects a marine pest emergency

Where the RCO suspects a **marine pest emergency** (see guidelines at Section 2.1.5) the RCO must immediately:

- Identify any urgent tracings.
- Notify the CR of the outcome of the investigation and provide details of:
 - the property owner and/or local management authority's name, address, telephone number

- the type of pest suspected
- the exact location of the suspected infestation(s)
- the numbers of affected and at-risk sites (including vessels)
- any urgent tracings
- whether assistance is needed, eg. to survey area
- decontamination which the REM may need to arrange for produce, immersible gear, vessels, water or other vectors that have left the suspect site(s) recently.

- Further assist the REM as required and stand by for further instructions.

2.1.4 Actions to be taken by the CR

The State/Territory CR may be contacted directly about a reported sighting and will either refer the report to the RCO or arrange for an initial appraisal as outlined in Section 2.1.2. Otherwise:

- the RCO will notify the CR only when an initial investigation causes the RCO to suspect a marine pests emergency

or

- another State/Territory will notify the CR that they are experiencing a marine pest emergency that may impact the CR's State/Territory.

2.1.4.1 Following a notification

As most notifications represent only a remote probability of an actual marine pest emergency, the CR must exercise a high level of judgment to determine the appropriate response at that time. Basic guidelines for deciding whether a notification is likely to be a real marine pest emergency are presented in Section 2.1.5. The initial response must ensure that it is possible to take all necessary actions if the probability of a marine pest emergency increases.

To facilitate evaluation and accountability the CR must:

- Commence use of a log book recording phone calls messages and contacts as soon as notification is received.

2.1.4.2 If the CR decides there is no marine pest emergency

The CR will:

- Advise the RCO.
- File the CR's notes and any other reports as a '*negative marine pest emergency report*'.

2.1.4.3 If the CR decides there is a high probability of a marine pest emergency

The CR will:

- Direct that the Alert Phase of EMPPlan be implemented.

See Section 2.2.3 for further details.

2.1.5 Grounds for suspecting a marine pest emergency

The following statements are intended as a guide to on-the-spot decision making and are not definitive. They are presented as an alternative to formal ecological risk assessment and formal decision support systems.

What triggers a marine pest alert?

When making a preliminary assessment, the RCO and CR may decide a reported sighting is likely to trigger a marine pest emergency alert when:

- ◆ The description matches a species represented on the CCIMPE target species list (see Appendix 3) and this report is a new outbreak well beyond established Australian populations of the species.
- ◆ Species detected is not on target list but meets one or more of the following criteria:
 1. Demonstrable invasive history;
 2. One or more relevant transport vectors are still operating;
 3. Demonstrable impact in native or invaded ranges on:
 - Economy;
 - Environment;
 - Human health; or
 - Amenity.
 4. Inferred as likely to have major impacts in Australia based on the overseas data and characteristics of Australian environments and marine communities.

Where expert advice, formal assessments or decisions support systems are available they could be used instead, noting that:

- marine pest population recruitment is likely to be slow enough to allow a detailed analysis of the level of risk
however
- there is a need to swiftly control translocation vectors in the event of an actual marine pest emergency.

2.2 Alert phase

The *Alert Phase* exists when:

there is a high probability of a **marine pest emergency** (see guidelines in Section 2.1.5) that warrants the appointment of, and investigation by, a full investigation team

and

the CR notifies the coordinator of State emergency services that a marine pest emergency may be imminent or already exists in another State/Territory.

Key points

- ◆ The CR consults with the REM to appoint an expert investigation team to investigate the suspect site(s).
- ◆ The investigation team collects a minimum set of information based on the EMPPlan Site Investigation Form (see Appendix 2) and immediately reports back to the REM and CR.
- ◆ The REM commences control of the suspect site(s) including establishing an operational control centre nearby.
- ◆ The CR notifies a wide range of other stakeholders including CCIMPE and appoints key staff to the strategic and operational control centres. The CR may decide to take these steps even where the marine pest emergency is in another State/Territory.
- ◆ Based on the results of the investigation the CR decides whether to proceed to the Operational Phase of EMPPlan.

2.2.1 Actions to be taken by the FO

2.2.1.1 Preparation

When there is a high probability of a marine pest emergency the FO must:

- Place any other FOs in the district on standby.
- Check to ensure adequate supplies for a site inspection are carried in their vehicle.
- Stand by for instructions from the REM or CR.

2.2.1.2 Initial site inspection

At the direction of the REM (or CR) the FO must:

- Proceed to the suspect site.
- Examine the affected area for pest distribution.

- Identify likely vectors in the area such as produce, immersible gear and vessels.
- Collect details of the location, affected area and relevant contacts by completing a EMPPlan Site Investigation Form (see Appendix 2).
- Report to the REM (or CR if the REM is unavailable) and fully describe the situation.
- Collect relevant history including:
 - site details
 - location and extent of infestation
 - location and movement of possible vectors.

2.2.1.3 Advice to stakeholders

At the direction of the REM (or CR) the FO must:

- Arrange for key industry contacts (where applicable) in the district to be advised that EMPPlan is at the Alert Phase.
- Report to the REM (or CR) when the above notifications have been completed.

2.2.1.4 Investigation team site visit

When the investigation team has been appointed (see Sections 2.2.5 and 2.2.6), the FO must:

- Accompany the investigation team to the suspect site or wait there until they arrive, to communicate the results of the FO's initial inspection directly to the investigation team.

The FO or a designated person must:

- Meet the investigation team at the entrance to the suspect site and direct them to the affected area.
- Present examples of the suspect organisms to the investigation team for examination.
- Constantly attend the telephone and facilitate communications with the REM (or CR).

The FO must remain at the site until the REM (or CR) authorises departure. Upon leaving the FO must:

- Provide property owners with departmental contact telephone numbers for their use.
- Supervise and facilitate treatment of diving equipment by exposure to sunlight or with a disinfectant (such as freshwater) as recommended by the scientist/scientific officer, ensuring that waste water does not run off into the marine environment.

2.2.2 Actions to be taken by the REM

2.2.2.1 Preparation

Where there is a high probability of a marine pest emergency (see guidelines in Section 2.1.5), the REM must:

- Refer to the appropriate EMPPlan contingency plans for generic actions.

- Obtain a copy of the completed EMPPlan pest reporting form from the RCO and evaluate the information it contains.
- Advise the local FO that EMPPlan is at the Alert Phase and, if appropriate, send the FO to the suspect site to conduct a preliminary inspection.
- Determine the availability of expert personnel to form the investigation team (see Section 2.2.5) and advise the CR.

2.2.2.2 Investigation team site visit

- **At the direction of the CR**, assemble the investigation team specified by the CR (see Section 2.2.5 for further details) and send the team to the suspect site(s).
- Prepare recommendations for the declaration of *restricted area(s)* (RA) and *control area(s)* (CA) and submit them to the CR.
- Develop proposals for personnel and other resource requirements for:
 - the operational pest control centre (OPCC) to be located near the suspect site(s)
 - the remainder of the region.

2.2.2.3 Following the team's initial assessment

- **At the direction of the CR**, take steps to limit the spread of pest by doing some or all of the following (as appropriate):
 - Impose quarantine to stop produce, immersible gear, vessels, water or other vector movements into and out of suspect site(s)
 - Control the movement of people (such as property owners, scientists) into or out of the suspect site(s) - this may involve input from the policeIf appropriate, direct the movement of vectors such as vessels that have already left the site(s) to appropriate sites for decontamination.
- Identify urgent tracings.
- Consult with the local FO and industry to identify key contacts for notification, where appropriate.
- Select a location near the suspect site(s) for the operational pest control centre (OPCC), in consultation with the regional State emergency service officer. For potential requirements of this location see Section 3.2.1.
- Notify:
 - FOs in unaffected districts in the State/Territory
 - the director of the state/territory fisheries laboratory
 - regional (and unit) managers within the department
 - local government (Shire Secretary)
 - police (emergency-management) coordinator
 - regional State emergency service officer
 - regional Telstra emergency-management contact officerthat EMPPlan is in the Alert Phase.

- Advise appropriate industry contacts with the following information:
 - EMPPlan is in the Alert Phase
 - the nature of the suspected marine pest emergency
 - the locations of the suspect site(s)
 - any actions required of them
 - whether they will be required to attend the OPCC.
- Obtain the EMPPlan Site Investigation Form (see Appendix 2) from the investigation team and convey any relevant information to the CR.

2.2.3 Actions to be taken by the CR

The CR is responsible for determining which of the following actions are necessary and ensuring that they are carried out. This will usually entail the distribution of job cards or standard operational procedures appropriate to the pest and industries concerned.

2.2.3.1 Preparation

The CR will:

- Ensure that all key people who would be involved in operations are advised that EMPPlan is in the Alert Phase to guarantee they can be contacted, after hours if necessary, and can locate all plans, procedures and resources. These key personnel will include:
 - the REM, who will direct the initial field investigation and who must keep the CR fully informed so that the CR can ensure that all necessary steps have been taken to limit the spread of pest
 - departmental executive management and the relevant minister's office
 - senior fisheries staff as relevant to the State/Territory emergency management structure and the investigation team (including any appropriate technical specialists)
 - senior departmental legal officer and senior finance manager
 - administrative staff responsible for setting up systems and communications
 - emergency management authorities at the State level in accordance with State/Territory emergency management plans
 - the chairperson of CCIMPE
 - the director of the CSIRO Centre for Research into Introduced Marine Pests (CRIMP)
 - key industry contacts.
- Request the chairperson of CCIMPE to notify all members of the details of the notification and advise them that a meeting or teleconference of CCIMPE may be required. Begin preparing an initial report for submission to CCIMPE.

2.2.3.2 Investigation team site visit

- Ensure that all necessary investigations and identification procedures are being carried out efficiently and that results are notified immediately to the CR by telephone and confirmed by facsimile.

- Notify CRIMP or other appropriate pest identification facilities (such as fisheries laboratories or museums) of arrangements for sending them samples for examination and advise the REM of these arrangements.
- Appoint and dispatch (in consultation with the REM) the investigation team to the suspect site(s) (see Section 2.2.5 for further details).
- Determine, following consultation with the REM, the boundaries of any restricted or control areas that may need to be proclaimed and prepare proformas for proclamation in conjunction with the department's senior legal officer.

2.2.3.3 Following the team's initial assessment/CCIMPE advice

Based on the investigation team's initial assessment or advice from CCIMPE in the case of an outbreak in another State/Territory, the CR will:

- If appropriate, direct the REM to take all necessary steps to limit the pest spreading.
- If required, convene a meeting or teleconference of CCIMPE to determine the extent of quarantine that may need to be imposed at suspect site(s) and to control potential vectors.
- Notify emergency management authorities at State/Territory level that EMPPlan is at Alert Phase and that the REM is in contact with emergency management officers at the regional level.
- Appoint a *director* of the State/Territory strategic pest control headquarters (SPCHQ). Depending on the scale of the outbreak this could be the REM; otherwise the CR will need to direct the REM to coordinate regional actions from the SPCHQ or OPCC.
- Preferably in consultation with the REM, appoint a *controller* of the OPCC who will supervise operations on-site. If there are few infested sites in the region (and the REM is not already director of the SPCHQ) this could be the REM; otherwise the CR will need to direct the REM to coordinate regional actions from the SPCHQ.
- Develop proposals for personnel and other resources required for the control/eradication campaign.
- Notify key industry contacts of actions and consultations.
- Brief the regional AQIS office about the situation.
- In consultation with the SPCHQ director, nominate and advise key professional and administrative staff to establish the SPCHQ.
- Advise relevant key staff in other non-infested regions of the State/Territory to carry out procedures in and of the administrative structure and functional responsibilities in the alert phase of the campaign (see Section 2.2.4 for further details).

2.2.3.4 If the investigation report shows there is no marine pest emergency

The CR will:

- Direct that the Stand-down Phase of EMPPlan be implemented.

See Section 2.4 for further details.

- File the CR's notes and any other reports as a '*negative marine pest emergency alert*'.

2.2.3.5 If the investigation report confirms there is a marine pest emergency

The CR will:

- Direct that the Operational Phase of EMPPlan be implemented.

See Section 2.3.4 for further details.

2.2.4 Actions to be taken by key staff and FOs in non-infested regions

The CR will see that advice about this investigation is provided to relevant key staff in other non-infested regions of the State/Territory. Where there is a high probability of a marine pest emergency **based on the CR's advice**, these key staff will:

- Advise the following personnel in non-affected regions:
 - all FOs (and other relevant staff)
 - the director of the state/territory fisheries laboratory
 - regional police emergency-management coordinators
 - regional State emergency service officers

of the following:

- EMPPlan is in the Alert Phase;
 - the type of marine pest emergency that is suspected, and the nature of its occurrence
 - the location(s) of the suspect site(s)
 - any actions required of them
 - that departmental staff must be readily contactable
 - the location of the proposed OPCC
 - whether they may be required to attend the OPCC.
- Place all FOs on stand-by.

FOs must then:

- Carry out any action required of them by the REM.
- Notify relevant key industry contacts in the district:
 - EMPPlan is in the Alert Phase
 - the nature of the marine pest emergency that is suspected
 - the location(s) of the suspect site(s)
 - any actions required of them.
- Check that vehicles carry appropriate supplies.
- Prepare to move immediately to the OPCC if requested.

- Ensure their manager is kept fully informed of their movements.

The particular actions required of FOs will vary according to the nature of the pest. FOs are advised to consult the appropriate EMPPlan generic contingency plans for further information.

2.2.5 Responsibilities of the CR and REM in forming the investigation team

When there is a high probability of a marine pest emergency, the CR will arrange to send an investigation team to the suspect site(s).

2.2.5.1 Appointment and composition of the investigation team

The CR will appoint members of the investigation team following consultation with the REM.

As a minimum, the team must include:

- an experienced marine pest scientist
- an epidemiologist/invasion biologist, preferably with previous experience with the pest concerned.

It is also desirable that the team includes:

- a laboratory scientist with experience in the collection, storage, packaging and transport of samples for examination (as required under International Air Transport Association rules)
- a qualified diver
- one other person to assist with disinfection/treatment procedures and the dispatch of samples collected.

2.2.5.2 Formation and briefing of the investigation team

Generally the REM will oversee the formation of the investigation team. The REM must ensure the team is briefed about:

- contacts at the infested area such as the FO
- the location(s) of the suspect site(s) (and how to get there)
- the details of the initial report and (if available) the FO's site inspection, including the type of pest suspected
- specific actions required of them
- quarantine and disinfection/treatment requirements for entry to and departure from the suspect site(s)
- arrangements for the dispatch of samples for laboratory examination.

2.2.6 Actions to be taken by the investigation team

2.2.6.1 Role of the investigation team

- Collect appropriate samples to ensure that a diagnosis can be made as quickly as possible
- Assist with evaluating the extent of the infestation and the potential for spreading

- Assist with ongoing epidemiological investigations including risk assessments and determining the source of the outbreak, including estimating the likelihood of spreading.

2.2.6.2 Preparation

Prior to departure the investigation team must:

- Ensure they have available an appropriate vehicle/vessel and the following equipment:
 - adequate protective clothing, eg. life jackets, overalls, rubber boots and hats or diving equipment if applicable
 - an appropriate diagnostic kit including appropriate preservatives, disinfectants and photographic equipment
 - mobile communications equipment, if appropriate
 - other equipment as requested by the FO and/or specified by the REM
 - the relevant sections of EMPPlan, the State/Territory Action Plan if available; and paperwork for International Air Transport Association (IATA) packaging of biological specimens and appropriate maps

2.2.6.3 Investigation team site visit

Upon arrival at the suspect site(s) the team must:

- Leave the vehicle/vessel outside the site(s) (if appropriate).
- Change into protective clothing and leave street clothes in the vehicle/vessel (if appropriate).
- In conjunction with the FO, conduct examinations as required, collect samples and additional information. Ensure that representative specimens of different sizes of the suspect species are examined and sampled.
- Collect detailed epidemiological information and provide a tentative assessment of the source of the infestation and the probability of spreading.
- Complete the EMPPlan Site Investigation Form (see Appendix 2).
- Provide the FO with an assessment of appropriate disinfection/treatment techniques.
- Ensure that the appropriate full range of samples are collected.
- Pack samples into sealed containers that can be effectively disinfected/treated off-site(s).
- Immediately on leaving the suspect site(s) the team must:
 - Disinfect/treat themselves thoroughly off-site(s), ensuring that waste water does not run off into the marine environment.
 - Place protective clothing in sealed bags for further treatment (if appropriate).
 - Report findings to the REM and CR, including an assessment of the probability of marine pest emergency and possible differential diagnoses.

Within 24 hours of leaving the suspect site(s) the team must:

- Dispatch samples to the appropriate, diagnostic laboratory approved by the CR, usually CRIMP, with a completed specimen advice form.
- Fax, e-mail or otherwise transmit the EMPPlan Site Investigation Form (see Appendix 2) to the REM.

2.3 Operational phase

The *Operational Phase* of EMPPlan exists when the CR:

- confirms the marine pest emergency
and
- notifies the coordinator of State emergency services that a marine pest emergency exists in the State/Territory.

Key points

- ◆ The REM and OPCC controller(s) will establish the OPCC(s) as required and inform stakeholders.
- ◆ The OPCC controller(s) will assume operational control at the infested site(s).
- ◆ The CR will delegate administrative functions to the SPCHQ director who will establish the SPCHQ.
- ◆ The CR will delegate other routine functions and liaise with key stakeholders including the relevant minister's office, departmental executive management, relevant State/Territory agencies and CCIMPE.
- ◆ Based on advice from the SPCHQ director and CCIMPE the CR decides when to proceed to the Stand-down Phase of EMPPlan.

2.3.1 Actions to be taken by the OPCC controller

2.3.1.1 Preparation

In the affected area of a confirmed marine pest outbreak the OPCC controller must:

- Confirm with the REM the declaration and specifications of the *restricted area(s)* (RA) and *control area(s)* (CA) and the location of the OPCC.
- Ensure all FOs, departmental district management and other key industry contacts in the district are advised about:
 - EMPPlan is in the Operational Phase
 - the nature of the marine pest emergency
 - the location of the infested sites
 - the boundaries of the RA and CA
 - the location, telephone and fax numbers of the OPCC
 - the need for any suspicions of the pest to be reported immediately to the OPCC and the person reporting must remain on site until permission is given by the OPCC controller to leave.

and on completion report this to the REM.

2.3.1.2 On arriving at the site

At the infested site(s) the OPCC controller or delegate must:

- Institute the provisions of quarantine and ensure adequate security of the infested site.
- Implement appropriate control.
- Act as site supervisor of the *infested sites operations team* (ISOT) until relieved of that duty.
- Provide advice to the REM on the resource requirements for any preliminary and urgent treatment or other control of pests and infected equipment.
- Make a preliminary assessment of suitable control procedures.
- Assess suitable sites for disposal of contaminated materials.
- Make a preliminary assessment of personnel and other resource requirements for the operation.
- Ensure the telephone is constantly attended and communications from the REM are facilitated.
- Advise the REM of further urgent tracings and priority neighbours that must be visited (such as downstream sites at risk).
- Provide for the welfare of the personnel on the infested site by ensuring their short-term needs for food and other provisions are met.
- Continue to report to the REM.

See Section 3 for further details.

2.3.2 Actions to be taken by the REM

In the affected area of a confirmed marine pest outbreak the REM must:

- Confirm the following particulars with the CR:
 - the declaration of the RA(s) and CA(s)
 - the location, telephone and facsimile numbers of the OPCC(s)
 - resource requirements and their supply (personnel and equipment)
 - any urgent tracings on and off the infested site including those outside the RA(s) that need to be referred to another REM or interstate.
- Establish the OPCC(s) (see Section 3.2) and provide for the management of routine fisheries or environment protection activities for the remainder of the region.
- Advise the following key contacts:
 - the OPCC controller(s) and other relevant staff in the region
 - the State/Territory fisheries laboratory director
 - departmental regional and unit managers
 - the Shire Secretary (local government)

- regional police (emergency-management) coordinator
- regional State emergency service officer
- regional Telstra emergency-management contact officer
- key industry contacts

of the following:

- the nature of the marine pest emergency which has been declared and that EMPPlan is operational
- the location of the infested site(s)
- the location and contact telephone and facsimile numbers of the OPCC(s)
- the boundaries of the RA(s) and CA(s) and conditions that apply therein
- the need to report suspicions about the pest and provide information as required
- any actions required of them
- the need to be prepared to move to the OPCC(s) if required

and direct the OPCC controller to take charge of the eradication or control campaign in the RA.

- Ensure that personnel involved in the eradication or control campaign are:
 - aware of their duties and powers.
 - informed about how long they are likely to be required and what they must bring with them (extra clothing, money, protective gear, sampling kits, State/Territory action plans, and so on).

- Continue to support operations at the OPCC(s) and coordinate with the SPCHQ.

See Section 3 for further details.

2.3.3 Actions to be taken by the SPCHQ director

Under delegation from the CR, the SPCHQ director will initially:

- Arrange for establishment and management of SPCHQ and appointment of personnel to key positions.
- Confirm that the REM has:
 - established the OPCCand
 - directed the OPCC controller to take charge of the eradication or control campaign in the RA.
- Advise all key department staff of:
 - the marine pest emergency situation
 - the controls and restrictions on produce, immersible gear, vessels, water or other vector movements
 - the potential need to provide support staff to OPCC and SPCHQ.
- Prepare media releases, including technical information, and initiate a crisis communication strategy (see the **Public Relations Manual**). In some cases joint State/Territory and Commonwealth press releases may need to be issued.

- Arrange for the appointment (gazettal) of interstate and other appropriate personnel as officers with powers under the relevant legislation.
- Arrange for approved valuers to be appointed under the relevant legislation.
- Arrange for all urgent tracings outside the RA to be appropriately followed up.
- Arrange for the notification of key industry and other contacts of the following:
 - the nature of the marine pest emergency which has been declared and that EMPPlan is Operational
 - the location of the infested site(s)
 - the location and contact telephone and facsimile numbers of the OPCC
 - the boundaries of the RA and CA and conditions that apply therein
 - the need to report suspicions of the pest and provide information as required
 - any actions required of them.

See Section 4 for further details.

2.3.4 Actions to be taken by the CR

The CR is responsible for ensuring that the Operational Phase of EMPPlan is implemented, including:

- declaring, in the format required by State/Territory legislation, that the marine pest emergency is in progress
- establishing the SPCHQ
- directing the statewide eradication/control campaign
- deciding when it is appropriate to move to the Stand-down Phase of EMPPlan.

It is not physically possible for the CR to carry out all of these actions personally. The CR will need to delegate some duties.

The initial key actions that the CR will carry out are:

- Advise the relevant minister's office and departmental executive management and arrange all necessary legislative matters to initiate the marine pest emergency eradication/control campaign, including:
 - invoking any necessary regulations
 - proclaiming an RA and/or CA
 - invoking necessary funding arrangements through the treasury department.
- Request a meeting of CCIMPE to initiate Commonwealth and other State action and to invoke Commonwealth/State cost-sharing arrangements if relevant. A comprehensive briefing needs to be prepared and preferably sent to members before the meeting (see Appendix 5).
- Activate the State's emergency management arrangements and request authorities to appoint liaison officers.
- Delegate responsibility for management of routine fisheries or environment protection programs in unaffected areas of the State.

See Section 4 for further details.

2.3.4.1 Deciding to end emergency operations

The CR is responsible for the decision to end emergency operations in the State/Territory.

Before making this decision the CR will:

- Consult with the SPCHQ director and CCIMPE.

Taking into account the advice of the SPCHQ director and CCIMPE the CR may:

- Direct that the Stand-down Phase of EMPPLAN be implemented.

See Section 2.4 for further details.

2.3.4 Actions to be taken by key staff and FOs in non-infested regions

The CR will see that advice about this investigation is provided to relevant key staff in other non-infested regions of the State/Territory. These key staff will:

- Advise the following personnel in non-infested regions:
 - all FOs (and other relevant staff)
 - the director of the State/Territory fisheries laboratory
 - regional police (emergency-management) coordinators
 - regional State emergency service officers
 - other agencies as required.

of the following:

- EMPPLAN is in the Operational Phase;
 - the nature of the marine pest emergency that has been confirmed (specify details)
 - the location of the infested site(s)
 - the location, telephone and facsimile numbers of the OPCC
 - the boundaries of the RA and CA and conditions that apply
 - the need to be prepared to move to the OPCC if required
 - any additional actions that the REM requires
 - the need to report any suspicions about the pest.
- Further advise relevant departmental staff:
 - to be prepared to move to the OPCC
 - of any further actions required of them.
 - Advise the REM when these steps are completed.

FOs in a non-infested district must:

- Advise the following personnel:
 - relevant departmental staff
 - key industry contacts

of the above-mentioned details, as well as:

- any movement restrictions that apply
- any actions that are required of them

- the need to report any suspicions about the pest and remain on a suspect site until permission to leave is granted by the OPCC controller or REM.
- Further assist the REM as required.

2.4 Stand-down phase

The *Stand-down Phase* exists when the State/Territory CCIMPE representative:

- advises or is advised by CCIMPE that there is no need to proceed to or continue with the Operational Phase
- and
- notifies the coordinator of State emergency services that a marine pest emergency no longer exists.

In the event that at this juncture emergency pest control operations fail to eradicate the pest the CR may direct that appropriate State/Territory Action Plans be developed to provide for ongoing population control (see Appendix 1).

2.4.1 Actions to be taken by the CR, REM and FOs when a suspected marine pest emergency is not confirmed

When investigations conducted during the Alert Phase fail to confirm a marine pest emergency, the CR, REM and FOs must:

- Notify those people and agencies they contacted during the Alert Phase (see Section 2.2), advising them that the threat of a marine pest emergency no longer exists.

2.4.2 Actions to be taken by managers at all levels towards the end of the Operational Phase

Towards the end of the Operational Phase, activities on infested sites/dangerous contact premises (DCPs – see Glossary), in the field, at OPCC and at SPCHQ will begin to wind-down and, necessarily, require fewer resources. Managers at all operational levels need to:

- Ensure that resources (staff and physical) do not exceed operational requirements, adhering to the following principles:

Stand-down implementation

- ◆ There must be a systematic approach to winding-down operations.
- ◆ It must be official and directed by a senior operational manager.
- ◆ It must occur as soon as operational objectives are achieved, rather than later.

3. OPERATIONAL PEST CONTROL CENTRE (OPCC)

3.1 Functions of the OPCC

An OPCC is established during an aquatic pest emergency eradication or control operation by the CR, who is in overall strategic command of eradication and control activities. To carry out field activities the CR will appoint a controller of the OPCC (see Section 2.3.3).

The role of the OPCC controller is to manage the control/eradication campaign within the OPCC area of responsibility. Initially this area will include the infested site and surrounding areas. Subsequently the OPCC area of responsibility will be the RA and any other areas as defined by the CR. The suggested staffing structure of the OPCC and the relations between its sections are shown in Figure 1.

Matters for policy determination will be referred to State/Territory strategic pest control headquarters (SPCHQ) which will also have primary responsibility for media and public relations, interdepartmental liaison and national liaison (see Section 4).

The OPCC will refer pest tracing activities outside the RA to the REM of the region concerned via the SPCHQ. Details of interstate tracing will be referred, through the SPCHQ, to the appropriate State/Territory authorities.

3.1.1 Objectives

The OPCC has the following objectives:

- Determine the source of the outbreak by tracing movements of produce, immersible gear, vessels, water or other vectors into the area during the incubation period.
- Define the extent of the outbreak by detecting all foci of infestation.
- Eradicate or control all known outbreaks of the pest if appropriate.
- Control the spread of an outbreak as appropriate by:
 - controlling the movement of produce, immersible gear, vessels, water or other vectors into, within and out of its area of responsibility
 - destroying pests and destroying or disinfecting/treating materials and things that may be infested
 - treating sites that may have been in contact with the pest
 - tracing the movements of produce, immersible gear, vessels, water or other vectors from and within the area during the suspected infectious/reproductive period
 - disinfecting/treating vessels, vehicles and persons moving from and within the RA
 - establishing control of special risk enterprises (processing plants, boat ramps, slipways, contained wash-down sites etc)
 - undertaking pest monitoring activities.

- Accurately record and value all stock and property destroyed or damaged and arrange compensation payment for these if appropriate.
- Maintain accurate records of monies expended on the campaign.

3.1.2 Administrative functions

The functions and size of the OPCC will vary according to the nature and size of the outbreak. In most situations the OPCC controller will establish priority tasks and will ensure that staff carrying out these tasks:

- Accurately define the nature and extent of the pest incursion (assisted by effective visual displays such as maps, flowcharts and diagrams).
- Maintain an effective information system (log, record and file data, and ensure efficient movement of data within, to and from sections).
- Continuously review priority tasks and modify them if necessary.
- Liaise with other emergency service agencies.
- Provide relevant information to the SPCHQ.
- Allocate people, plant and other resources in an efficient manner.

In certain circumstances, the OPCC must be capable of 24-hour operation. This will require multiple staff shifts. Note that it in these circumstances is preferable to rotate shift-workers into/out of the Centre at least every 4 days.

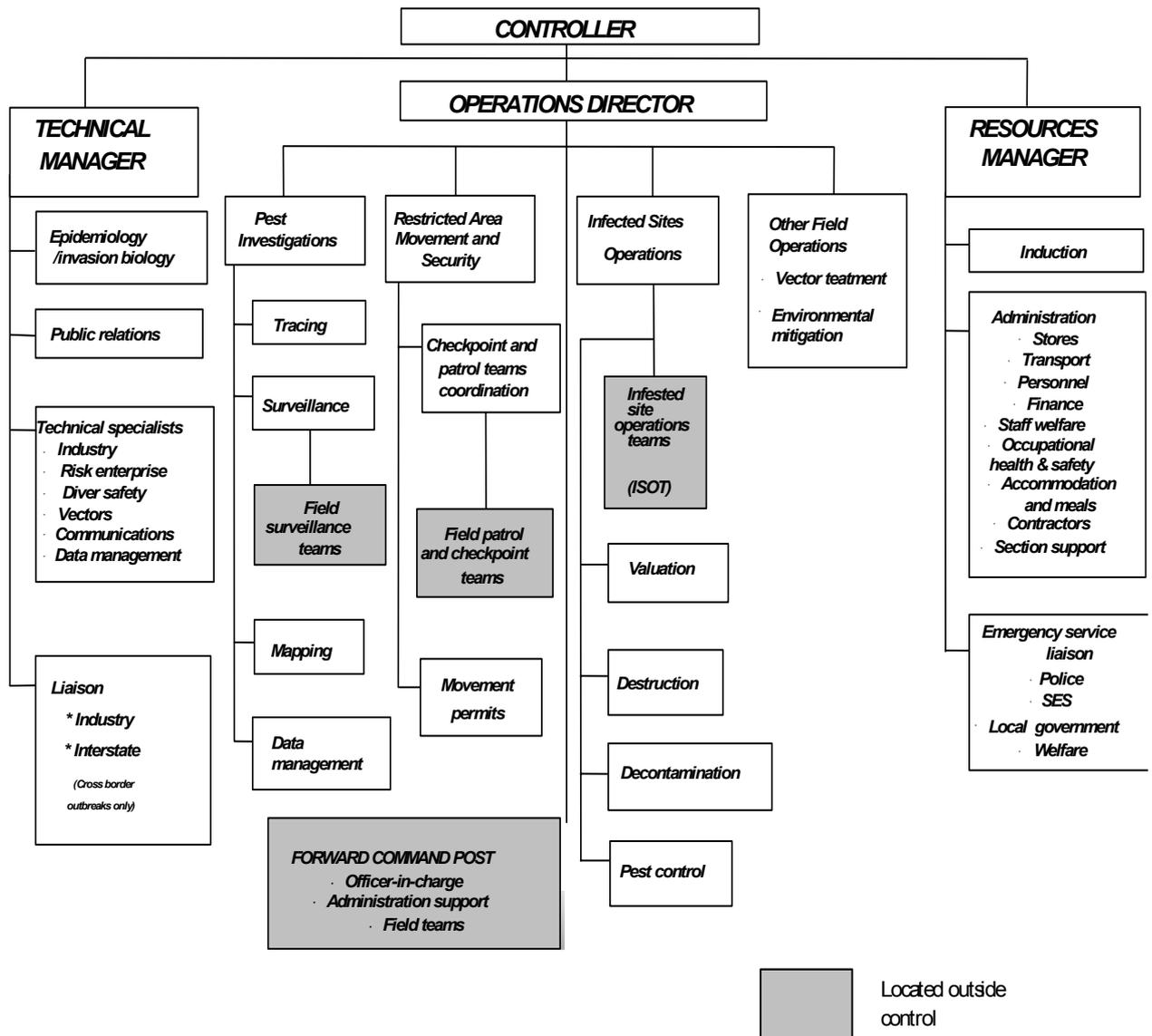


Figure 1 Model OPCC structure

3.2 Establishment of an OPCC

The REM or delegate must consult with the *regional police emergency management officer* and regional *State emergency service (SES) officer* to find possible sites for an OPCC. Usually the SES will maintain a register of possible sites and final selection will be based on factors prevailing at the time.

It is essential to identify the resources required to run an OPCC, both initially and for ongoing operations. Section 3.3 outlines the OPCC sections that need to operate, however the final determination of resources required will depend on a number of factors including:

- the pest involved
- size of the incursion
- likely age of incursion
- environmental system involved

- types of marine enterprises in the area
- density of marine enterprises
- local human population considering support facilities for the OPCC.
- meteorological information
- local marine industry factors
- hours of expected operation
- relief staff requirements and availability
- environment and topography
- expected staff projections.

3.2.1 OPCC site

Final selection of an OPCC site will depend on:

- **Size** - Generally a large hall will be required, however the factors listed above will influence the size required.
- **Location** - Location of the OPCC is important for two reasons. Firstly the OPCC must be located close to the infested site so that all infested site activities can easily be managed from the centre. Secondly the OPCC should be sited close to a location from which services can be provided for personnel, ie. accommodation, meals and the provision of stores and supplies for the OPCC and infested sites.
- **Communications** - The provision of effective communications is one of the elements essential for the successful operation of an OPCC. It is essential that the selected site has access to an adequate number of telephone lines, facsimiles, computer lines and other communications needs. It is better to have the OPCC located slightly further from the infested site if communication facilities are better. It is usually essential to be able to connect up to 25–30 telephone lines. Cellular phones, if usable in the area, simplify this requirement. Don't forget the batteries and chargers. Consideration should also be given to the establishment of two-way radio communications.
- **Length of operation** - Most marine pest emergency eradication or control campaigns will take a considerable time to complete - in the order of two weeks. It is essential that this is clearly understood by the owners/caretakers of the facility chosen for the OPCC. It is inappropriate to attempt to change an OPCC location in the middle of the eradication or control campaign.
- **Security** - Security must be considered in terms of firstly the internal security of the OPCC so that only authorised personnel have access to operational areas of the OPCC. Secondly, consideration should be given to the external security and in particular the provision of adequate and secure vehicle parking and decontamination areas. Finally there must be an area where stores can be held securely.
- **Temperature control** - Ensure that the OPCC has the capacity for adequate heating or cooling.
- **Noise control** - It is important to minimise external and internal noise so that efficiency is maximised. The provision of carpets and matting and the use of partitions help alleviate noise problems.

3.2.2 Equipment

Equipment will be available from a number of sources including local department units, SES, local government and private hire firms. A list of suggested office equipment is:

- photocopying machines
- facsimile machines
- IBM compatible computers and printer
- whiteboards and marker pens
- felt noticeboards on stands for maps
- filing cabinets and protective sleeves for files
- typewriters
- typist tables, chairs and accessory typing supplies
- office tables and chairs
- EMPPlan Manuals
- required forms, permits for movement etc
- stationery requirements, e.g. paper, pens

3.2.3 Recommended layout

- Restrict entry into the main operations area to staff on duty. No access to this area for the general public and media.
- Separate key operational areas from areas for meals and other personnel support functions. Accommodate staff reception, toilets and showers, refreshments and kitchen separately.
- Separate the staff briefing area from the operational area.
- Use partitions to separate the main operations area into sections. Signs indicating the various sections or units are useful.
- Store marine pest emergency materiel in a secure area in the OPCC or a secure site adjacent to the OPCC as soon as possible.
- Provide offices for unit managers.

It is likely that a large number of people will require various movement permits. If the OPCC is in the RA a separate facility may need to be set up for the issuing of permits and licences outside the RA. The *Restricted Area Movement and Security* (RAMS) unit requires an area for dealing with the public who require movement permits that is separated from operational work areas.

3.3 Summary of functions of sections within the OPCC

An example of a OPCC layout is presented below:

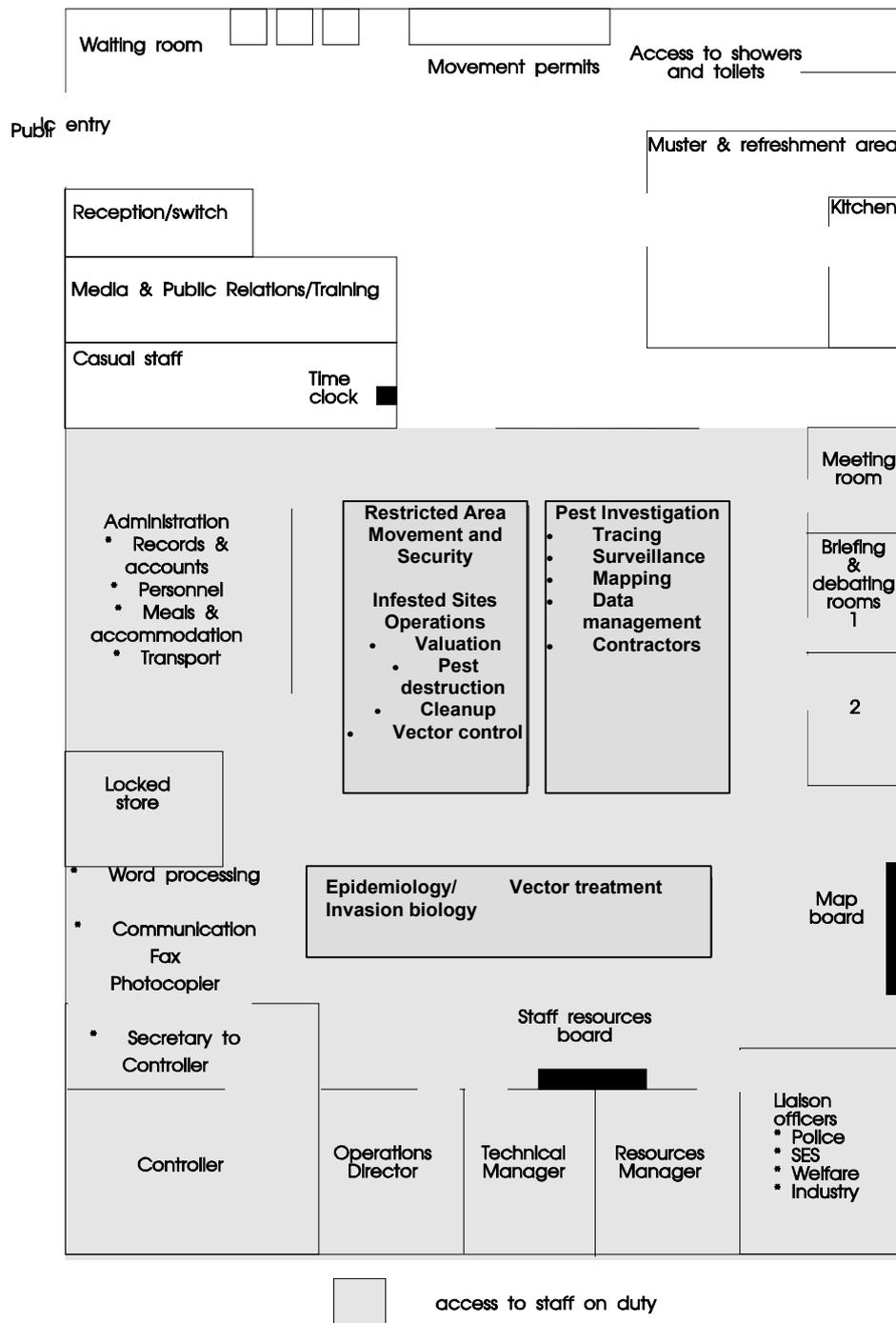
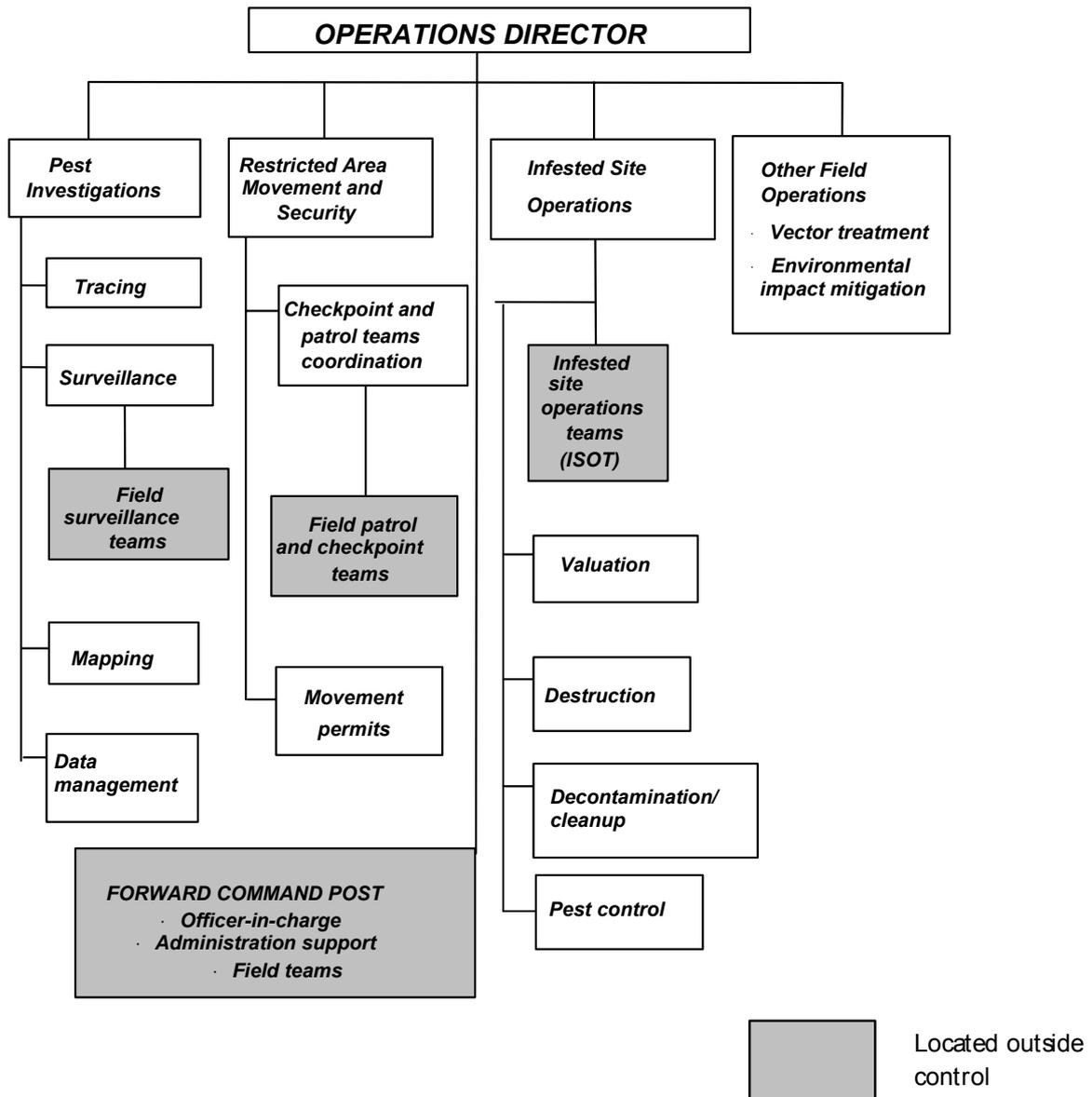


Figure 2 Suggested layout of an OPCC

3.3.1 Operations Section



The *Operations Section* conducts the operational aspects of the eradication or control program. The *Operations Director* is usually second-in-charge to the OPCC controller.

3.3.1.1 Pest investigations

The *Pest Investigations Unit* manages all tracing and surveillance activities within the area controlled by the OPCC. These activities aim to identify any undetected foci of infestation.

The main duties of this unit are to:

- Dispatch field teams to systematically visit and inspect all sites under its jurisdiction that may have pest infestations.
- Trace the movement of vectors from infested sites and DCPs.

- Advise SPCHQ of tracings required outside the RA.
- Maintain a detailed map identifying infested sites, DCPs and all other sites with susceptible animals or contaminated material within the area under its jurisdiction.
- Liaise with key industry contacts and enlist their support in containing the outbreak.

3.3.1.2 Restricted area movement and security (RAMS)

The *Restricted Area Movement and Security Unit* controls the movement of produce, immersible gear, vessels, water or other vectors including people into, within and out of the RA as appropriate in order to minimise pest spreading.

The main duties of this unit are to:

- Issue movement permits to the public.
- Establish and operate road/water checkpoints in the RA, including liaison with State transport authority, water authorities, police and local government.
- Coordinate movement and security activities across infested sites.
- Maintain registers of all movements (RA and infested sites), permits issued and staff deployed in RAMS Unit.

Many personnel in the RAMS Unit will have no background in fisheries or environment protection, so initial briefings and reinforcement of quarantine measures and movement restrictions appropriate to the pest in question are necessary.

3.3.1.3 Infested sites operations unit (ISOU)

The ISOU manages all activities to eradicate or control the infestation on known infested sites and DCPs from the OPCC. Field activities are conducted on infested sites and DCPs by the ISOTs (see Section 3.4).

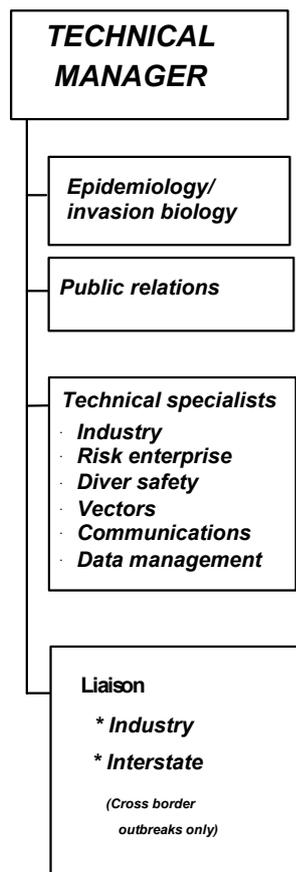
The duties of the ISOU are to:

- Manage resources to allow effective operation on infested sites and DCPs.
- Ensure inventories, valuation, compensation and other financial activities are conducted appropriately.
- Ensure that destruction and disposal of pests is prompt, environmentally safe, humane and within budget.
- Ensure that decontamination and clean-up is conducted according to the nominated standards.

3.3.1.4 Other field operations

This unit includes personnel responsible for field operations such as vector control and treatment, and environmental impact mitigation as appropriate.

3.3.2 Technical Section



3.3.2.1 Epidemiology/invasion biology

This is a specialist unit that must work in close cooperation with other units and the OPCC controller. It is *not* the role of this section to perform duties of the identification, surveillance and tracing subsections of the Pest Investigations Unit.

The *Epidemiology Unit* will:

- Determine:
 - if possible, the source of the outbreak/method of pest introduction
 - how long the pest has been present at the site
 - any previous and future mechanisms of pest spreading.
- Analyse information from:
 - reports from the Pest Investigations and Infested Sites Operations Units
 - Bureau of Meteorology or other appropriate agency supplying daily oceanographic reports
 - liaison officers for specific industries, as well as the OPCC vector control coordinator.
- Make recommendations to the OPCC controller on:
 - the boundaries of the proclaimed RA
 - declaration of infested sites and DCPs

- samples to be taken from infested sites and DCPs
- decontamination techniques
- vector control and treatment programs
- release of quarantine.

3.3.2.2 Public relations

The *Public Relations Unit*, under the direction of the *local public relations officer* prepares material for distribution to the media, local industry and the public on the progress of the campaign. It is also responsible for preparing material for briefing staff when they first arrive at the OPCC.

The main duties of this unit are to:

- Prepare updates on the progress of the eradication or control campaign for distribution to OPCC and other departmental operational staff.
- Prepare information packages for local distribution and for visitors to the OPCC.
- Organise press conferences.
- Coordinate arrangements and briefings for visitors.
- Preparing news releases.
- Prepare bulletins for public release that describe the movement restrictions and any other conditions that apply within the RA.
- Prepare information for new staff on arrival at the OPCC.
- Continually re-evaluate information needs.

The OPCC controller must appoint a spokesperson to speak to the media. This person will preferably have suitable experience, seniority and professional standing to be credible to the media.

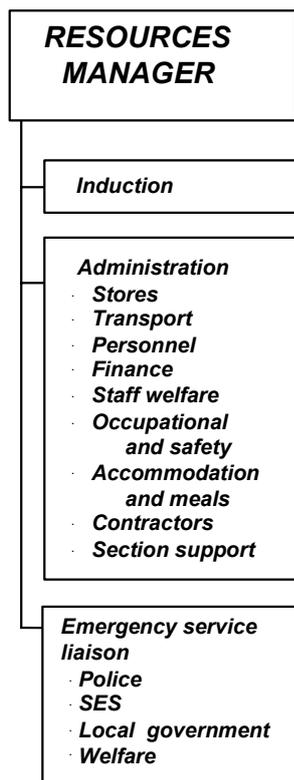
3.3.2.3 Technical specialists

Specialists are included in the Technical Section as appropriate for a particular pest and area. These may include vector experts, control agent experts, diving safety experts, engineers or specialists in the operation of a risk enterprise that may be in the area (see Figure 1).

3.3.2.4 Liaison

The Technical Section also includes officers to liaise with the affected industry(s) and, if necessary, for interstate liaison in the situation where a pest outbreak crosses State borders.

3.3.3 Resources Section



The *Resources Section* provides the administrative support to the OPCC.

3.3.3.1 Induction

The *Induction Unit* is responsible for briefing incoming staff on the nature of the pest, the current situation and operational procedures.

3.3.3.2 Administration

The *Administration Unit* is responsible for providing coordinated administrative services to the OPCC and infested sites.

The main duties of this unit are to:

- Provide adequate personnel services.
- Coordinate accommodation and meals to all OPCC and IPOT staff.
- Manage the OPCC transport fleet.
- Coordinate the hiring and firing of private contractors.
- Provide IT support.
- Coordinate administrative services on infested sites.

3.3.3.3 Emergency services liaison

An emergency services liaison officer will be responsible for coordinating activities with the State emergency management services, eg police, SES, local government.

3.4 Infested sites operations teams (ISOT)

3.4.1 Infested sites operations teams (ISOT)

The role of the ISOT is to manage and conduct all activities on the infested site(s) and dangerous contact premises (DCPs). These activities are coordinated through the Infested Sites Operations Unit (ISOU) of the OPCC and are aimed at:

- the eradication or control of the marine pest on these areas
- the prevention of pest spread to other areas.

See Section 3.3.1 for further details.

The main duties of each ISOT is to:

- Manage day-to-day activities of valuation, destruction, disposal, cleaning and wild animal control.
- Enforce quarantine for physical and biological security.
- Prepare an accurate inventory of all pests and other material for destruction and disposal.
- Prepare valuations for compensation material to be destroyed and disposed of.
- Plan and conduct efficient and humane pest destruction.
- Plan and conduct disposal of pests and other material.
- Plan and conduct cleaning and decontamination operations.
- Plan and conduct wild animal control operations.

Figure 3 shows the proposed staffing structure for an ISOT. Detailed role descriptions are given in **Part 2** of this manual.

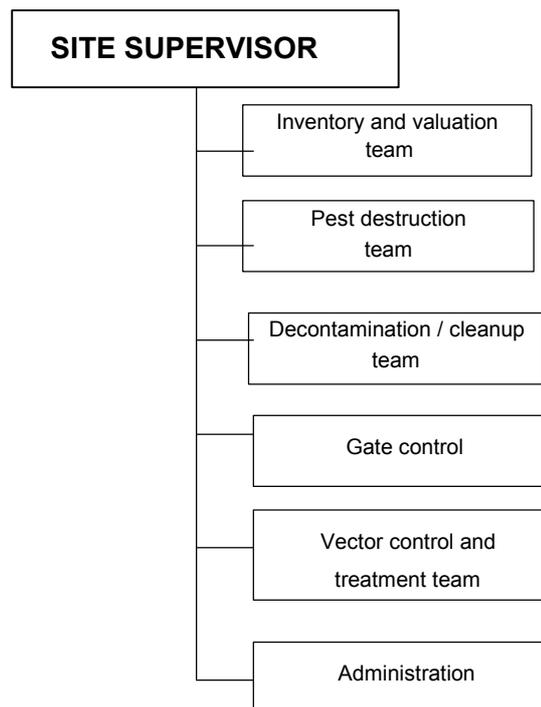


Figure 3 Proposed ISOT structure

3.5 Forward command post

Especially in larger States/Territories, tracing and surveillance activities by field surveillance teams may detect infested sites or DCPs in locations remote from the OPCC. In these cases the establishment of another full-scale OPCC is not warranted and the OPCC controller, after consultation with the CR, may choose to establish a *forward command post* (FCP).

The role of the FCP is to provide a base for field activities and communicate relevant information to the OPCC. The FCP may be outside the RA being controlled by the OPCC. Therefore, another smaller RA may need to be declared to include the remote infested sites/DCPs and surrounding areas. It is essential that there is accurate and timely information flow between the FCP and the OPCC.

4. STATE PEST CONTROL HEADQUARTERS (SPCHQ)

4.1 Functions of the SPCHQ

The SPCHQ is established at the direction of the State/Territory CR once a marine pest emergency has been confirmed anywhere in the State/Territory and the operational phase is activated. The SPCHQ may also be set up if a marine pest emergency is suspected or confirmed in another State/Territory. This is relevant when there are traces to the unaffected State/Territory.

The SPCHQ is the emergency operations centre responsible for State/Territory-wide coordination of all marine pest emergency operations. It plays a vital supporting role, helping the CR to develop pest control policies and the OPCC to implement of these policies in the field. The SPCHQ collates, assesses and summarises the complex information coming from various sources, informs the CR of significant developments, and advises on strategies, procedures and resource requirements. Policy decisions are relayed by SPCHQ back to the OPCC for implementation.

4.1.1 Administrative functions

While the SPCHQ structure is similar to that of the OPCC, it must not assume responsibilities or duplicate the functions that are more appropriately carried out by the OPCC.

The primary functions of the SPCHQ are to:

- Determine, implement and coordinate State/Territory-wide marine pest emergency control policies and strategies.
- Liaise with the CCIMPE, the Commonwealth, State and Territory authorities. All communications with other jurisdictions must go through the SPCHQ, except with cross-border operations where the SPCHQ will encourage direct liaison and cooperation on operational matters between OPCCs in adjacent States.
- Brief the department's executive management and relevant ministers.
- Create and coordinate a crisis communication strategy to the public.
- Coordinate pest investigation, tracing, surveillance and movement controls in the CA and elsewhere throughout the State/Territory.
- Notify other States/Territories of tracings to their jurisdiction.
- Approve tasks not delegated to the OPCC, such as confirming new infested sites and DCPs and approving treatment.
- Provide information statewide to the public and groups with special information needs.
- Implement legal arrangements and ensure that all legal requirements are met.

- Provide additional technical support as required.
- Oversee financial arrangements and provide administrative support.
- Ensure effective information flows between the OPCC and field operations.
- Liaise with emergency services at State/Territory level.
- Determine criteria for identification, quarantine, movement controls, monitoring, surveillance and restocking.
- Define financial and other delegations.

4.2 Activation and establishment of the SPCHQ

The SPCHQ is activated on the direction of the CR and usually established in the head office of the *State or Territory department of fisheries or environment protection*.

4.2.1 Layout

The *resources manager* is primarily responsible for setting up the SPCHQ. The initial layout will depend on the available facilities, and should be modified as required to suit the requirements of the campaign and the available resources (see Section 4.5).

Unlike an OPCC, the siting and selection of an SPCHQ does not require provision for large numbers of stores and vehicles

There must be adequate open floor space with maps and bulletin boards for briefing sessions as well as sufficient offices or partitioned areas to allow undisturbed work.

Preferably the site will be able to expand in cases of large outbreaks as venue changes are disruptive.

4.2.2 Communications

Arrangements must be made in advance with Telstra and other agencies to ensure that sufficient lines for additional facsimile machines, on-line computers and dedicated telephone lines which cannot be jammed. Staff must be trained in advance in the procedures necessary to activate these special communications arrangements and to locate and activate all office and information management systems. In most States/Territories, the police can provide recorded message services of very high capacity to provide standard information to the public.

4.2.3 Public access

Public access to the SPCHQ must be restricted to avoid disruption and secure confidential or personal information. It is usually best to have the Media and Public Relations Unit in a separate room. The CR may give television crews permission to film the SPCHQ at work, but they must *not* be permitted to film details on bulletin boards.

4.3 Structure, management and staffing

The CR will have chosen the key SPCHQ personnel during the initial operational phase. The following role descriptions define the roles of these staff in an ongoing campaign.

The State/Territory CR is in overall control of the pest eradication or control campaign. The SPCHQ director coordinates the day-to-day conduct of the campaign and liaises directly with OPCC controllers. Normally at least four other officers are required to staff the SPCHQ: a *technical support manager*, *resources manager*, *operations manager* and a *registry clerk*. The managers are each responsible for units staffed, if required, by various coordinators, officers, additional registry clerks and other support staff. The *resources manager* is responsible for ensuring the smooth day-to-day operation of the SPCHQ.

The precise nature and extent of emergency operations will vary considerably between different pest eradication and control campaigns and during the course of a single campaign, depending on the nature, location and size of the pest outbreak, the stage and progress of the campaign, and the availability and capability of personnel. Consequently, the structure and staffing of the SPCHQ must remain flexible and be adapted to best meet the prevailing needs of the campaign.

- In a **small campaign** or during **periods of reduced activity**, sections or units might combine with staff performing more than one function.
- In a **large campaign** or during **busy periods**, two or more people might share the same function.
- In a **large and widespread campaign**, especially if there is more than one OPCC, certain functions will be centralised within the SPCHQ, including technical support, media and public relations, legal support and supporting agency liaison.

A proposed staffing structure for a SPCHQ is shown in Figure 5.

4.4 Functions of SPCHQ sections

4.4.1 Technical Support Section

The Technical Support Section is responsible for:

- Assessing the pest outbreak and its control.
- Providing technical and policy advice.
- Preparing situation reports and CCIMPE agenda papers.
- Coordinating industry liaison.
- Coordinating media and public relations.
- Providing legal services.

The section is headed by the technical manager, assisted as required by industry liaison coordinators/officers, the State/Territory public relations manager, legal officers, specialist support officers, and an epidemiologist/invasion biologist.

The SPCHQ and OPCC technical managers must work closely together to ensure their activities are well coordinated. Responsibilities, functions and workloads must be clearly defined to avoid duplication of effort, matters being overlooked, or conflicting advice.

4.4.1.1 Industry liaison

Industry liaison is a vital adjunct to marine pest emergency operations. Key industry organisations and representatives must be kept well informed of the situation and consulted over policy.

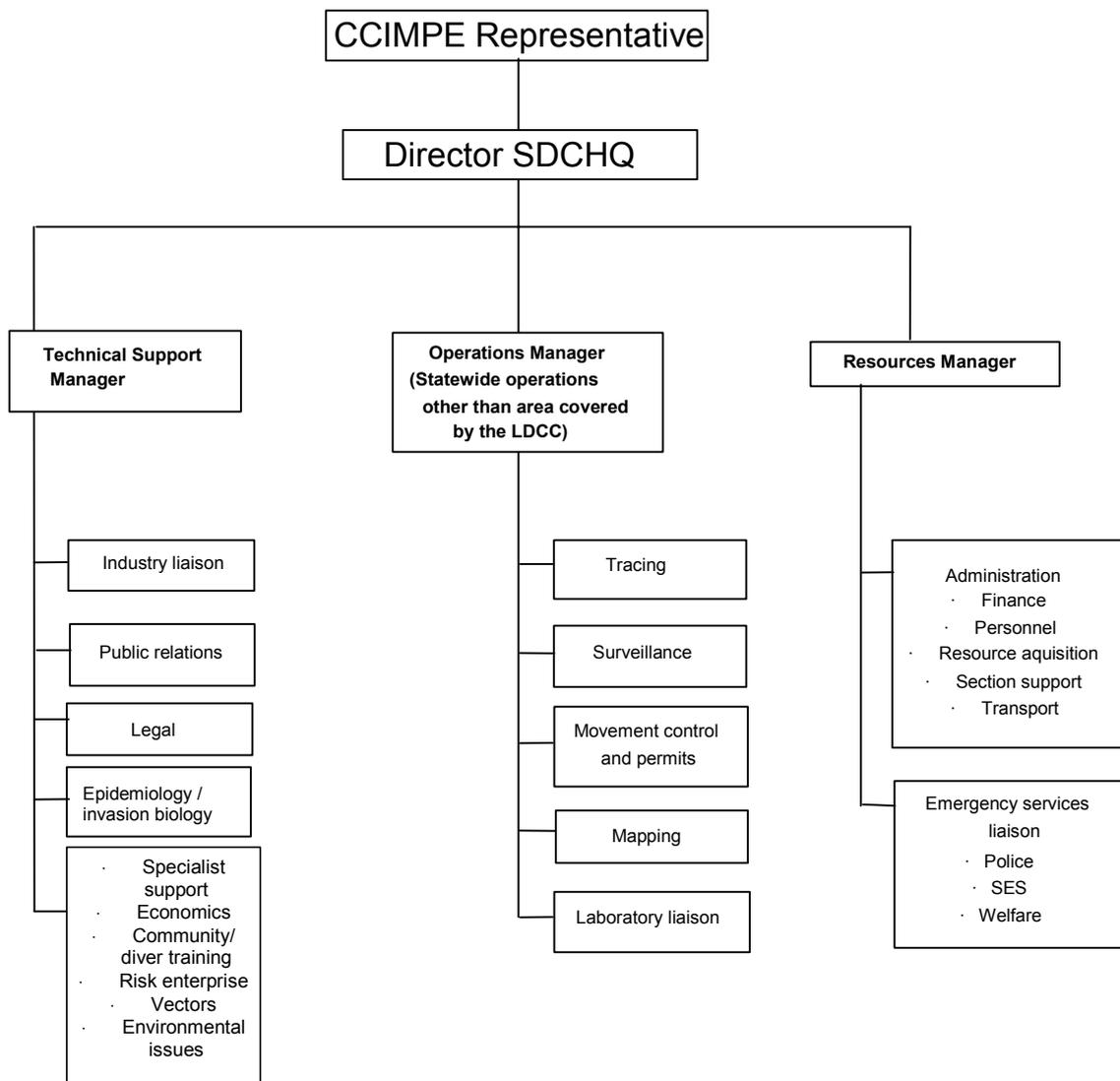


Figure 5 Model SPCHQ structure

The functions of industry liaison are to:

- Keep industry informed of developments in the campaign.
- Consult with industries to determine likely methods of pest spread, options for pest control, the effect of pest control policies and programs on industry, and to obtain feedback on the progress of the campaign.

- Seek/encourage industry endorsement of pest control policies, cooperation with control activities, and dissemination of information to their members.

Industry liaison at both State and local levels is overseen by a coordinator assigned to the SPCHQ. If necessary, additional industry liaison officers might be appointed at the SPCHQ and OPCC. These officers may be department staff who normally work closely with the relevant industry, or they may be representatives of the relevant industry. The number and type of officers will vary, depending on the pest, the environment affected, the location of the outbreak, and the stage of the campaign. Separate liaison officers might be needed for different industries and risk enterprises (e.g. wild fisheries and aquaculture) during the one campaign. The SPCHQ and OPCC officers must work closely together. SPCHQ liaises with industry associations and representatives at State and national levels. OPCC liaises with local industry branches and representatives, community groups and with individuals.

4.4.1.2 Public relations

A crisis communication strategy is essential for the efficient running of a campaign. A campaign may be technically perfect but can fail due to lack of public and political support. The crisis communication strategy needs to be up to date and integrated into the technical strategy. It is essential that appropriate, accurate and adequate media coverage of the campaign is provided, in order to:

- Increase alertness for signs of the pest and encourage early recognition and reporting.
- Enhance knowledge of and compliance with movement restrictions and other pest control activities.
- Maintain community and political support for the campaign.
- Fulfil legal and moral obligations for freedom of information.

The role of the *Public Relations Unit* is to prepare and convey appropriate information about the pest and the control campaign to the media, to industry, and to the general public in both rural and urban communities. It is also responsible for preparing material for briefing staff at the SPCHQ, as well as department staff statewide.

The SPCHQ *public relations manager* has overall responsibility for operations at both State and local levels. The SPCHQ and OPCC media officers must work closely together. SPCHQ is responsible for the development and implementation of policy on media coverage, approves all media releases relating to policy and other sensitive issues, and will primarily handle the capital city and national media. OPCC maintains close contact with local media.

4.4.1.3 Legal support

All pest control activities must be carried out in accordance with the relevant State/Territory legislation. The functions of legal support are to:

- Prepare and arrange proclamations, delegations and orders.
- Advise on the legality of proposed policies and operations.
- Provide legal advice on specific issues as they arise.

- Prepare and arrange prosecutions.

The SPCHQ legal coordinator has overall responsibility for legal services at both State and local levels. A legal officer with clearly defined responsibilities might also be appointed to the OPCC to provide local support if required.

4.4.1.4 Epidemiology/invasion biology

The OPCC epidemiologist/invasion biologist is primarily responsible for the collation and interpretation of epidemiological data. It is appropriate, particularly in a widespread or multifocal campaign, to appoint an epidemiologist/invasion biologist to the SPCHQ to oversee this process and provide technical advice about pest spread and control to the SPCHQ technical and operations managers and the CR.

Other specialist support

Specialist support officers might be assigned on a full or part-time basis to provide technical, financial and policy analysis and advice on a diverse range of issues such as animal welfare, economics, environmental protection, wild animals or vectors, and matters peculiar to unique industries and risk enterprises.

4.4.2 Operations Section

The SPCHQ Operations Section is responsible for coordinating all veterinary and regulatory operations within the CA and elsewhere throughout the State/Territory.

The operations manager undertakes most of these functions in a small campaign. In larger operations, various tasks are delegated to appointed coordinators and officers. A registry (section) clerk assists with mapping, whiteboard displays and information management.

4.4.2.1 Tracing, surveillance, movement controls and vaccination

Tracing of contacts outside the RA will be relayed by the OPCC to the SPCHQ. If these relate to movements within a State, the SPCHQ Operations Section will pass this information on to appropriate and available field staff for follow up. Information about movements interstate will be relayed to the relevant CR or their nominated officer.

Surveillance of any suspect sites identified by tracing is similarly arranged by this section and carried out by field staff.

The monitoring and enforcement of movement restrictions applying within the CA or across State/Territory borders are overseen by the Operations Section.

4.4.2.2 Mapping

The Operations Section maintains maps showing the boundaries of the RA and CA, the location of suspect sites outside the CA, key regional and emergency service resources, and other information as required.

4.4.3 Resources Section

The SPCHQ Resources Section liaises with emergency services at the State level, acquires the resources and provides administrative support and expertise for the smooth and efficient operation of the campaign and SPCHQ function. This frees technical and policy staff from day-to-day administrative concerns.

4.4.3.1 Administration

The administration coordinator manages financial, personnel, stores and other administrative matters within the SPCHQ. The Administration Unit also oversees administrative functions at the OPCC and across the State (as they relate to the pest control campaign) to ensure they comply with policy, and provide adequate support. However, the OPCC Administration Unit will carry out their day-to-day functions autonomously.

The administration coordinator might delegate administrative tasks. Additional registry (section) clerks might be engaged to handle information flow in the SPCHQ. Although the Administration Unit is responsible for staffing this function, the registry clerks will be directed in their day-to-day duties by the director or by the manager of the section or unit to which they are assigned.

4.4.3.2 Emergency services liaison

Under State/Territory emergency management arrangements, the department of agriculture/fisheries is the combat agency for marine pest emergency outbreaks. However, many other agencies have a significant supporting role to play.

SPCHQ is responsible for establishing and maintaining liaison at the State level. The OPCC is responsible for working with district and local emergency services.

- **Small localised campaign** — most emergency services liaison will be undertaken locally by the OPCC. The role of SPCHQ will be limited to ensuring that appropriate operational use is made of emergency services, and keeping the State headquarters informed of developments through situation reports.
- **Large widespread campaign** (which is beyond local resources) — coordination of support will be done at the State level, and the role of SPCHQ in supporting agency liaison will become much more prominent.

Emergency services might appoint liaison officers to coordinate the services of their agency. They remain responsible to their own organisations. Liaison officers might only be required from certain agencies during the initial stages of the campaign or for other limited periods. The resources manager ensures they are provided with necessary information, facilities and support.

5. NATIONAL COORDINATION

5.1 Consultative Committee on Marine Pest Emergencies

The Consultative Committee on Marine Pest Emergencies (CCIMPE) is the primary coordinating body at the national level. It includes representatives of the Commonwealth, each State, the Northern Territory and the CSIRO Centre for Research on Introduced Marine Pests (CRIMP). CCIMPE may also call on additional expertise as required, and such an approach is encouraged.

Members of CCIMPE

- A representative from the National Office of Animal and Plant Health, AQIS and Environment Australia, one officer nominated by each State/Northern Territory, the Director of the CSIRO Centre for Research on Introduced Marine Pests (CRIMP), and National Office to chair
- The body should call upon other appropriate expertise to assist it in its deliberations as required.

[Need to refer to Terms of Reference and Operating Procedures. The following are proposed:].

5.1.1 Functions of CCIMPE during a marine pest emergency

5.1.1.1 Investigation and Alert phases

During the Alert and Operational Phases of EMPPlan the main objectives of CCIMPE are to:

- Determine whether an incident meets the criteria of a marine pest emergency
- Advise on the level of response required during the Alert Phase This includes determining:
 - appropriate quarantine and vector control strategies, especially where action/inaction on the part of the affected State/Territory(s) seems likely to affect the marine environment and industries of other jurisdictions
 - appropriate eradication strategies and techniques.
- Swiftly establish a nationally consistent response strategy.

5.1.1.2 Operational phase

- Ensure that affected and potentially affected State/Territory(s) receive appropriate and adequate support.

Specific functions during the Operational Phase of EMPPlan are:

- Make recommendations on any additional resources that may be provided to the affected region(s).
- If appropriate, or at the discretion of the Commonwealth representative, direct that the National Pest Control Coordination Centre be established. The Commonwealth representative will then appoint a director of the National Pest Control Coordination Centre who will be responsible for establishing the Centre.
- To advise when the emergency is over and make recommendations on possible post-emergency action. The post emergency phase will also include the assessment of claims for payment of costs under cost sharing arrangements. Examples of costs eligible for reimbursement can be found at Appendix 4.

5.1.2 CCIMPE operating procedures during a marine pest emergency

When a marine pest emergency is at the Alert Phase (see Section 2.2 and especially Section 2.2.3) the CR in the affected State/Territory may request the Chair to convene CCIMPE via a meeting or teleconference to provide advice and/or determine the level of response required.

During an Alert Phase any other member may also request such a meeting through the Chair.

Where there is no clear majority of opinion CCIMPE will either vote on decisions or adopt other procedures as agreed by consensus.

5.1.3 Other CCIMPE functions

CCIMPE will also convene at least once a year specifically to support the ongoing management role of the Standing Committee on Fisheries and Aquaculture. In the interim period CCIMPE will also have a role in assisting in the assessment of species to be added to the trigger list..

5.2 National Pest Control Coordination Centre

The National Office of Animal and Plant Health within Agriculture, Fisheries and Forestry - Australia will provide secretariat functions for CCIMPE. **At the direction of CCIMPE or the Commonwealth representative on CCIMPE** this secretariat role may expand during a marine pest emergency to accommodate increased strategic planning, support and coordination functions.

The director of the National Pest Control Coordination Centre may use Section 4 as a guide to establishing the National Pest Control Coordination Centre.

5.2.1 Functions

The main roles of the National Pest Control Coordination Centre are to provide administrative support to assist CCIMPE in achieving its objectives.

Specific functions of the National Pest Control Coordination Centre include:

Coordination at the Commonwealth level as required with:

- Australian Customs Service
 - Agriculture Fisheries and Forestry - Australia (Industries Development group Fisheries and Aquaculture Branch)
 - Department of Transport and Regional Services (Maritime? relevant administrators of Commonwealth Territories)
 - Department of Defence (Navy, relevant administrators of Commonwealth Territories, Coastwatch and Emergency Management Australia)
 - Australian Government Solicitor
 - Department of Finance and Administration
 - Department of Prime Minister and Cabinet
- Coordination with State/Territory agencies as required.

6. INFORMATION SYSTEMS AND MANAGEMENT

6.1 Information management system

Currently it is each jurisdiction's responsibility to maintain data relevant to managing introduced marine emergencies.

Management agencies in each State and the Northern Territory and the CSIRO Centre for Research on Introduced Marine Pests have developed a project through the Natural Heritage Trust's Introduced Marine Pests Program to establish a National Introduced Marine Pests Information System. The system will enable national consolidation of existing datasets and information such as:

- species biology and impacts
- ID guides
- pest distributions
- treatment/control methods.

This information will be available through the Internet. As a result the system is being designed to enable:

- on-line reporting of pest monitoring data including reported sightings
- dissemination of routine pest management reports
- Internet access to related websites such as the proposed Integrated Pest Management Network (IPMNet).

6.2 Administration systems (OPCC)

It is expected that each administrative section and unit within the OPCC will maintain its own records systems. These systems should allow the accurate recording and filing of details of OPCC operations, be operable by relief staff when required and be capable of preparing daily situation reports for that function for the OPCC officer-in charge of administration.

Whenever possible, the standard departmental system for stores, personnel, vehicle hire, etc should be used. This will facilitate smooth operation, especially in the early stages of the campaign.

6.3 Control centres information management

Information management must be simple and easily understood by individuals not used to such a system during normal duties. Information must be recorded, filed, retrievable and follow-up actions checked to ensure completion.

The *resources manager* in OPCCs and SPCHQs is responsible for information management. This will include the provision of sufficient clerical support and copying facilities.

6.3.1 Method

6.3.1.1 Message forms and log sheets

Control centres process a vast amount of information in the course of a pest eradication/control campaign including large numbers of messages between a control centre and its supporting/reporting agencies and individuals. Replacement of staff and extended operations requiring multiple shifts, demand that all information be recorded, distributed and located in a systematic way.

As there may be 20 or more points of access for external communications (usually telephone and fax) operating in the control centre, there cannot be one communications centre through which all internal and/or external communications are channelled and accounted for. This places a responsibility on each individual who has access to a means of communication. The receiver or initiator of information must keep a copy of all messages. This is best achieved by means of a self-carboning message form. All information must be recorded on a message form, even if it is only a record of a conversation that does not need to be distributed further. Only information that has 'value' needs to be recorded (ie information essential for the conduct of the campaign) so it can be referred to and found/retrieved later. Message forms should be numbered. Sections or units may use message forms with a prefix or number identifying the section/unit. Copies of message forms are kept on a file and may be copied to other files, such as sites files. Faxes and radio messages should be copied to message forms.

The essential information contained in a message form is transferred to a one-line, serially numbered entry in the section logbook by the person who took the original message. The log may refer to an individual desk if it is busy, or to a small section. The purpose of the log is to account for every message on a system where messages can be easily located, avoiding the need to search many message forms to identify a single item. The log also records completed actions and whether the distribution of information has been effected and/or whether a reply is necessary. It is kept up-to-date by the individual managing the relevant desk and serves as a reminder of incompleted tasks. It is invaluable in shift handover because it provides a summary of activities for the period and a check of incomplete actions.

Log sheets should be bound so that there is no opportunity for pages to be lost.

Message forms contain an address for their destination at the top. Addressees for distribution are circled by the message initiator and the original message is placed in the section out-tray where it is collected by the section clerk. Clerks are responsible for copying and distributing message forms. The initiator and clerk are responsible for keeping the amount of paper to a minimum, consistent with the 'need-to-know' principle. The priority of the message must also be circled.

Individuals on the move around the control centre need to carry a clipboard of message forms, or a notebook, and record information. This is transferred to message forms. Log entries are made on return to the individual's work station.

6.3.1.2 Files

All sections/units and many individuals will need to keep their own working files. Infested sites files are best kept and maintained as a central file in the Pest Investigations Unit of the OPCC. Extra clerical support will be necessary to maintain and keep track of these files, which may be loaned out to other sections (all loans MUST be recorded). Working

papers, including some sites information will need to be kept as small working files in sections and at desks. As sections have no further need for sites information, it should be sent to the Pest Investigations Unit where it is placed on the relevant original sites file, or discarded if duplicated. The file cover should have a one-line summary of the information on each paper in the file. This is updated as papers are added. Folios must be numbered.

6.3.1.3 Personnel

In addition to clerical support in each section, the OPCC controller and operations director and SPCHQ director may need secretarial support. In large operations, the SPCHQ director may need a communications manager to control all information of an official nature that is entering and leaving the control centre in the form of reports, situation reports, press releases, and so on. The communications manager may need a clerk to handle incoming and outgoing faxes. The secretary and communications manager may be the same person in a small operation.

Section and unit leaders are responsible for conveying all necessary information to their staff. The content and frequency of information sessions, newsletters and reports can be adjusted to achieve this.

An administrative person in the reception area restricts unauthorised entry to the control centre and may direct visitors, with an escort, to an appropriate area of the centre (away from the main operational areas) or may initiate a message into the centre.

6.3.1.4 Information boards

Whiteboards, chalkboards and maps can be used to display and convey a variety of information in the control centre. Commonly-used contacts and suppliers, major resources, locations, teams, rosters and housekeeping information, etc can be conveniently displayed. Staff must be advised by the induction officer at their initial briefing about which boards are necessary for them to consult.

6.3.1.5 Briefings

No attempt should be made to let everyone in the centre have access to all the information available. In a large operation, there will be an overwhelming amount of information which must be directed only to those who need it for action or information. Staff information briefings should be conducted regularly and should summarise the main issues. Section and individual briefings will be required on a continuing basis to reflect changing circumstances.

7. GLOSSARY

Alert phase	See Stages of activation.
Area	A defined tract of land and or water for the time being subject to pest control restrictions under marine pest emergency legislation.
ANZECC, MCFFA, NOMB, ARMCANZ	Relevant councils of State/Territory and Commonwealth ministers that ratified national control strategies for exotic pests as official policy.
CCIMPE, Consultative Committee on Introduced Marine Pest Emergencies	A representative from the National Office of Animal and Plant Health - AFFA, AQIS and Environment Australia, one officer nominated by each State/Northern Territory, the Director of the CSIRO Centre for Research on Introduced Marine Pests (CRIMP), chaired by National Offices representative.
CA, Control area	A declared area in which defined conditions apply to the access or egress of specified marines or fomites. Conditions applying in a control area are of lesser intensity than those in a restricted area. The limits of a control area and the conditions applying therein may be varied rapidly according to need.
DCP, Dangerous contact area/premises	An area showing no signs pest infestation but which, by reason of its probable exposure to pest, will be subjected to some pest control measures or monitoring.
Director of Fisheries	The officer in each State or Territory who has prime responsibility for management of fisheries resources. In some states the officer also has prime responsibility for control of emergency marine pests.
Disinfectant	In this context, any chemical agent (including freshwater) used to destroy marine pests.
Disposal	Sanitary removal of dead organisms and potentially infested material by burial, burning or some other process so as to prevent the spread of pest and preserve human health.
EMPPlan	Australian Emergency Marine Pest Management Plan - a technical response plan outlining the Australian emergency response to marine pests incursions; linking policy, strategies, implementation, coordination and counter-disaster agency plans.
Field Officer	Individual with some knowledge of marine pests who may suspect an emergency marine pest. (Government employee or private individual).
Forward command post	A field operations centre, subsidiary to a local pest control centre, established in remote area operations.
Infested area	An area infested with or believed to be infested with a marine pest.

Infested site	A defined area (which may be all or part of a vessel, premises, lease or waterway) in which a marine pest emergency exists, is believed to exist, or in which the vector of that marine pest emergency exists or is believed to exist. An infested site may be subject to quarantine served by notice and to eradication or other control procedures.
Investigation phase	See Stages of activation.
Lead combat agency	The agency which controls the pest control operation, having special expertise and legal responsibility in that particular type of emergency. The identity of the lead combat agency will vary as to the emergency management legislation of the particular State/Territory.
Operational pest control centre	An emergency operations centre responsible for the management of field operations in a defined area.
marine pest emergency	A situation requiring an immediate response and highest priority for allocation of resources to a pest of the marine environment.
Movement control	Restrictions placed on movement of animals, people and fomites to prevent spread of pest.
National pest control centre	An established centre from which national pest control actions are coordinated in a marine pest marine pest emergency.
Operational procedure	Detailed instructions for carrying particular tasks in pest control such as valuation, destruction, decontamination etc.
Operational phase	See Stages of activation.
Operations	The activities necessary to give effect to a pest control strategy.
Operations manual	Document containing specific, step-wise instructions on certain operations.
Owner	Person responsible for an item of property or a premises (includes the agent of the owner eg. manager or other controlling officer).
Introduced Marine Pest	An introduced marine pest incursion situation requiring an immediate response and highest priority for allocation of resources and action
Quarantine	Legal restrictions imposed on a place, animal, animal product, vehicle or other things limiting movement.
Rehabilitation	Process of adjustment to circumstances prevailing in the aftermath of a marine pest emergency.
Restricted area	A relatively small declared area (compared to a control area) around an infested site that is subject to intense surveillance and movement controls.
Risk enterprise	A marine or marine related enterprise with a high potential for pest spread, eg a slipway.
Roadblock	Road or water check-point or barricade to maintain compliance with movement control restrictions.

Regional Emergency Manager	An officer with expertise in EMPPlan who is appointed to manage eradication control procedures in a designated region..
SCC, SCEP, NEPCC?, SCFA	Standing committees of State/Territory and Commonwealth officials that develop national policy relevant to marine pest emergencies and report to councils of State/Territory and Commonwealth ministers.
Section	Major subdivision of a pest control centre responsible for a particular segment of eradication operations.
Stages of activation	Investigation, alert, operational, stand-down.
– Investigation phase	exists when key members of the fisheries or environment protection authority are notified that a marine pest emergency may be imminent, or exists in another State;
– Alert phase	exists when the State/Territory CCIMPE representative notifies the coordinator of State emergency services that a marine pest emergency may be imminent, or exists in another State;
– Operational phase	exists when the State/Territory CCIMPE representative notifies the coordinator of State emergency services that a marine pest emergency exists in the State;
– Stand-down	exists when the State/Territory CCIMPE representative notifies the coordinator of State emergency services that a marine pest emergency no longer exists.
State/Territory pest control headquarters	The emergency operations centre that directs the pest control operations to be undertaken in the State/Territory.
Strategy	The principles on which control of a pest is based.
Support agency	An agency having a defined role to assist the lead combat agency to give effect to marine pest emergency-management plans.
Surveillance	A systematic program of inspection and examination of animals or things to determine the presence or absence of an emergency aquatic pest.
Survey	A program of investigation designed to establish the presence, extent of, or absence of pest.
Suspect area/site	An area which is likely to have been exposed to a marine pest such that its quarantine and intensive surveillance, but not pre-emptive treatment, are warranted; OR an area not known to have been exposed to a marine pest but showing infestation with a species requiring further identification.
Suspect materials or things	Materials or things likely to be contaminated by a pest.
Tracing	The process of locating vectors that may be implicated in the spread of pest so that appropriate action can be taken.
Vector	Contaminated material or object capable of spreading the marine pest.

8. ABBREVIATIONS

AFFA	Agriculture, Fisheries and Forestry, Australia
ANZECC	Australia New Zealand Environment and Conservation Council
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
AUSVETPLAN	Australian Veterinary Emergency Plan
EMPPlan	EMPPlan
CR	CCIMPE representative
CRIMP	CSIRO Centre for Research on Introduced Marine Pests
AQIS	Australian Quarantine and Inspection Service
CCIMPE	Consultative Committee on Introduced Marine Pest Emergencies
CA	Control area
DCP	Dangerous contact premises
FCP	Forward command post
FO	Field officer
ISOT	Infested site operations team
MCFFA	Ministerial Council on Forests, Fisheries and Aquaculture
NOAPH	National Offices of Animal and Plant Health
NOMB	National Oceans Ministerial Board
OPCC	Operational Pest Control Centre
RA	Restricted area
RAMS	Restricted Area Movement and Security Unit
RCO	Regional Contact Officer
REM	Regional Emergency Manager
SES	State Emergency Service
SPCHQ	Strategic Pest Control Headquarters

APPENDIX 1 Commonwealth/State/Territory Action Plans

The following notes are adapted from the *Model Comprehensive State Management Plan for the Prevention and Control of Nonindigenous Aquatic Nuisance Species* (Katherine Glassner-Shwayder, Environmental Quality and Resource Management Program, Great Lakes Commission; URL: <http://www.glc.org/projects/ans/modelbmp.html#recomm>).

Action Plans such as contingency plans for marine pest emergencies and long-term pest or population control plans will preferably include the following sections:

- **Executive summary**, including:
 - a brief synopsis of each section of the Action Plan
 - a general statement on the purpose of the Plan from the perspective of the relevant State/Territory
 - an overview of the goals on which the plan is based
- **Marine pest species and/or population information**, including:
 - history of invasion
 - relevant biology and ecology
 - likelihood of spreading and impacts
- **Legal and policy basis** within the jurisdiction, including:
 - any linkages to Commonwealth policy, legislation and plans (for example contingency plans for marine pest emergencies could refer to this Manual)
 - State/Territory institutional arrangements
- **List of specific management programs and/or actions**, including:
 - management goals and associated problem statements (for example, the goals of long-term population control plans are likely to include preventing new outbreaks and reducing the impacts of established populations; hence there are likely to be specific needs for population reduction and containment strategies, community awareness and participation, training, and research)
 - strategic actions and specific tasks needed to address them within the jurisdiction
- **Implementation**, detailing (preferably in a tabular or other graphic format) specific tasks and associated:
 - responsibilities
 - budgets and other resource requirements (for example, contingency plans may refer to lists of stores, key personnel and their contact details)
 - timelines.
- **Monitoring and evaluation sub-programs** to monitor, evaluate and (if necessary) adjust implementation.
- **Glossary** (as required).
- **Appendices** (as required).

APPENDIX 2 Reporting forms

Explanatory Notes

- A. This reporting system is designed so that initial reports by field officers or members of the public of sightings of exotic marine organisms will be channelled to the Regional Contact Officer.
- B. There are two reporting forms in this appendix:
1. The Initial Reporting Form is used either by a Field Officer receiving a report from the public or by the Regional Contact Officer receiving a report over the phone. At this stage the important questions are:
 - Who is providing the information and who else can we talk to for more information?
 - What do you suspect?
 - Where is it?
 - Can we obtain specimens for further investigation?
 2. The Site Investigation Form is used by the Regional Emergency Manager and site investigation team to collect details at the suspected site of an outbreak including high priority issues such as tracing vector movements. The important questions are:
 - What is the nature of this outbreak? (extent, depth, surfaces covered, densities, size range of organisms etc)
 - What are the movements of water and other likely vectors into and out of the infested area?
 - What are the contact details of stakeholders? (such as property owners, port authorities etc)

Exotic Marine Organism

Initial Reporting Form

Field Officers completing this form must:

1. Provide their contact details at the space marked *
2. Fax this page to ()

1. Who is reporting this discovery?

NAME DR/MR/MRS/MS

(circle)

(surname)

(first name)

ADDRESS

TELEPHONE

()

(work)

()

(home)

E-MAIL

AFFILIATION / ORGANISATION

(if relevant)

* FIELD OFFICER'S (FO) NAME

FO TELEPHONE

()

FO E-MAIL

2. What have you found?

SUSPECTED SPECIES

DESCRIPTION OF SPECIMEN/SPECIES

(distinguishing features)

CONFIDENCE IN IDENTIFICATION

(experience, taxonomic training, or other basis for assessment)

3. When did you find it?

DATE OF DISCOVERY

4. Where did you find it?

SITE NAME

DESCRIPTION

.....

LANDMARKS

.....

LATITUDE

.....

LONGITUDE

.....

MAP/CHART REFERENCE

.....

5. Have you taken specimens?

YES

NO

If YES give information as to how to get a well preserved specimen to someone who can correctly identify it (eg. as appropriate: keep immersed in salt/fresh water, refrigerate, hold for collection, send to appropriate laboratory etc).

WAS A SPECIMEN PROVIDED TO FIELD OFFICER OR REGIONAL CONTACT OFFICER?

YES

NO

(If YES circle which officer)

6. Can you also tell me ...? (if possible, obtain supplementary information)

HABITAT DESCRIPTION

.....

(include seafloor or other substrate)

DEPTH OF INFESTATION

.....

DEPTH AT WHICH SPECIMEN WAS OBTAINED

.....

**ABUNDANCE/QUANTIT
Y**

.....

(include estimate of area searched)

Exotic Marine Organism
Initial Reporting Form – Regional Office Use

File No:

Status of Reported Discovery

To be completed by the Regional Contact Officer

1. When was this report received?

DATE RECEIVED

2. Is a site visit by investigation team recommended?

YES

NO

If YES provide this report to the State/Territory CCIMPE Representative.

REASON(S)

.....

.....

.....

.....

.....

.....

3. Was a site investigation conducted?

YES

NO

DATE

NAME OF TEAM LEADER

.....

If YES obtain a copy of the Site Investigation Form and attach it to this report.

Within 7 days of the date received the Regional Contact Officer will contact the person who reported (Question 2) and/or filled in the form (Question 5) and tell them what is happening.

4. Was the reporter contacted and informed of progress?

YES

NO

DATE

SIGNATURE

.....

(Regional Contact Officer to sign)

Exotic Marine Organism

Site Investigation Form

File No:

Report of the Site Investigation Team

NAME OF
SITE/AREA

DATE & TIME
OF INVESTIGATION

The aims of this form are to guide investigation of a possible marine pest emergency and hence to record standard information such as:

- Who is doing the investigation?
- What have they done?
- What have they found?

1. Who was responsible for conducting the site investigation?

NAME DR/MR/MRS/MS

(circle)

(surname)

(first name)

POSITION

TELEPHONE ()

FAX ()

E-MAIL

ORGANISATION

RELEVANT TAXONOMIC EXPERIENCE

2. Who else was present?

NAME DR/MR/MRS/MS

(circle)

(surname)

(first name)

POSITION

TELEPHONE ()

FAX ()

E-MAIL

ORGANISATION

RELEVANT TAXONOMIC EXPERIENCE

.....

NAME DR/MR/MRS/MS
(circle) (surname) (first name)

POSITION

TELEPHONE () **FAX** ()

E-MAIL **ORGANISATION**

RELEVANT TAXONOMIC EXPERIENCE

.....

NAME DR/MR/MRS/MS
(circle) (surname) (first name)

POSITION

TELEPHONE () **FAX** ()

E-MAIL **ORGANISATION**

RELEVANT TAXONOMIC EXPERIENCE

SPECIMENS SENT FOR VERIFICATION TO

.....
(Name of recipient)

ORGANISATION

ADDRESS

.....
DATE SENT

Send this report to the State Pest Contact Officer within 24 hours of completing the site investigation.

DATE REPORT COMPLETED AND SIGNED

DATE REPORT SENT TO STATE CONTACT OFFICER

I CONFIRM THAT THE INFORMATION IN THIS REPORT ACCURATELY REFLECTS THE RESULTS OF THE SITE INVESTIGATION I CONDUCTED.

(Investigation Team leader named at Question 1 to sign)

APPENDIX 3 Interim Trigger List of Introduced Marine Pests

CRITERIA

Necessary and sufficient information to justify including a species on the trigger list (all four need to be satisfied)

1. Demonstrable invasive history.
2. One or more relevant transport vectors are still operating.
3. Demonstrable impact in native or invaded ranges on:
 - economy;
 - environment;
 - human health; or
 - amenity.
4. Inferred as likely to have major impacts in Australia based on the overseas data and characteristics of Australian environments and marine communities.

Necessary and sufficient information to justify removing species from the trigger list (any one needs to be satisfied)

1. Scientific, empirical data show that impacts overseas are less than previously thought.
2. Scientific, empirical data show that impacts in Australia are likely to be less than previously thought.
3. Already is or becomes widely distributed in Australia.

Interim List

8.1.1 Species	Common Name	Native Distribution	Introduced Distribution
<i>Aurelia aurita</i>	Moon Jelly	Northern Hemisphere	Hawaii
<i>Caulerpa taxifolia</i> Aquarium strain	Marine Algae	Native strains circumtropical	Invasive 'hybrid' in Mediterranean Sea
<i>Cyanea</i> spp.	Lion's Mane Jelly	Northern Hemisphere	?
<i>Dreissena bugensis</i>	Quagga Mussel	Europe	North America
<i>Eriochir sinensis</i>	Chinese Mitten Crab	North West Pacific	Europe; West North America
<i>Mnemiopsis leidyi</i>	Comb Jelly	Western Atlantic	Black Sea; Mediterranean
<i>Mytilopsis sallei</i>	Black Striped Mussel	Caribbean	Hong Kong; India; Singapore; [Darwin, NT]
<i>Pfesteria piscicida</i>	DinoFlagellate	North West Atlantic	?? (proposed as introduced to N America)
<i>Potamocorbula amurensis</i>	Asian clam	North West Pacific	North East Pacific (SF Bay)
<i>Rapana thomasina</i>	Gastropod	North West Pacific	Black Sea
<i>Rapana venosa</i>	Gastropod	North West Pacific	North West Atlantic (Chesapeake Bay)
<i>Sargassum muticum</i>	Asian Seaweed	North West Pacific	North West Pacific; England
In Australia, but not widespread			
<i>Asterias amurensis</i>	Northern Pacific Seastar	North West Pacific	Tasmania, Victoria
<i>Codium fragile</i> spp. <i>tomentosoides</i>	Broccoli weed, Dead man's fingers	North East Pacific	Tasmania, Victoria
<i>Musculista senhousia</i>	Asian Date or Bag Mussel	North West Pacific, South Asian Seas	Tasmania, Victoria, Western Australia
<i>Undaria pinnatifida</i>	Undaria Seaweed "wakame"	North West Pacific	Tasmania, Victoria

Note that this list is currently limited to marine and estuarine species.

APPENDIX 4 ELIGIBLE COSTS

The following is an example of the costs eligible for reimbursement during an emergency operation. These are based on established principles from the AUSVETPLAN process.

Key Costs eligible for reimbursement

- Salaries or wages of staff who are, or would be, employed by the responsible Commonwealth, State or Territory organisation, irrespective of the introduced marine pest emergency are **not** eligible for reimbursement.
- Salaries or wages (and associated costs (payroll tax, super etc.)) for staff recruited by the organisation to assist directly with the eradication will be eligible for reimbursement.
- Allowances for staff employed in the introduced marine pest emergency will be eligible for reimbursement.
- Overtime incurred directly as a result of the introduced marine pest emergency will be eligible for reimbursement.
- Operating expenses directly incurred in the eradication program will be eligible for reimbursement.
- All stores and equipment purchased with funds which have been subsequently reimbursed from the interim cost-sharing arrangements shall be sold or valued at the time the arrangements are deemed to cease and the proceeds of any sale or equivalent valuation, will be distributed to the Commonwealth, all States, the NT and the ACT in the same proportion as contributions actually made by them. All parties have to approve any variation to this procedure.
- Capital expenditure on major items such as motor vehicles or buildings will not be eligible for reimbursement.
- Essential equipment required for the immediate servicing needs of the introduced marine pest agency operations will be eligible for reimbursement. Similar provisions apply at the end of an emergency as described for operating expenses above.

- 4 DISCUSSIONS/CONCLUSIONS OF CCIMPE**
Chair/Members
- 5 MOVEMENT AND TRADE ISSUES**
 - 5.1 Intrastate - outside Restricted/Control Areas**
 - 5.2 Interstate**
 - 5.3 International**
- 6 ADMINISTRATIVE ARRANGEMENTS**
 - 6.1 Additional staff/resources**
 - 6.2 Estimates of cost**
- 7 NOTIFICATION TO INDUSTRY/INTERNATIONAL**
 - 7.1 State**
 - 7.2 National**
 - 7.3 International**
- 8 MEDIA RELEASE** **Host State, FDU**
 - 8.1 Local**
 - 8.2 State**
 - 8.3 National**
- 9 SUGGESTED RECOMMENDATIONS TO** **Chair**
SCC/SCFA/SCEP/ANZECC/MCFFA
 - 9.1 Advice of the occurrence of the pest**
 - 9.2 Feasibility and mechanisms of eradication**
 - 9.3 Invoking the Commonwealth/States cost-sharing agreement**
- 10 OTHER BUSINESS**
- 11 NEXT MEETING**
- 12 CLOSE**