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# *Pacific Adventurer* Oil Spill

Independent review of responsiveness  
of the Disaster Management System  
support

This document provides a review of how the Disaster Management System supported the oil spill response following the discharge of oil by the *Pacific Adventurer* into the Coral Sea off Brisbane on 11 March 2009.

Department of Transport and Main  
Roads (Maritime Safety Queensland)



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## 1 Executive Summary

Australia's national oil spill arrangements are documented in the *National Marine Oil Spill Contingency Plan* (National Plan) and are reflected in the *Queensland Coastal Contingency Action Plan* (Queensland Plan). Queensland's Disaster Management System is documented in the *Disaster Management Act 2003*.

The *Pacific Adventurer* oil spill incident on 11 March 2009 was the first time the national oil spill response arrangements were combined with Queensland's disaster management arrangements as part of an oil spill response. The incident occurred in the lead-up to a State Government election, and gained significant media attention and public interest which added a complex dimension to the incident response.

The integration of the oil spill response arrangements of the National Plan with Queensland's disaster management arrangements provided operational challenges, however, the overall response to the incident was effective and proportionate, and resulted in a successful outcome.

This report provides an independent assessment and a summary of findings related to the analysis of how Queensland's disaster management system supported the oil spill response. The review is based on the Terms of Reference provided by the Department of Transport and Main Roads (Attachment One).

Combining Queensland's disaster management arrangements with national oil spill arrangements represents a paradigm shift. The declaration of a 'disaster situation' by the Queensland Government following the *Pacific Adventurer* oil spill enabled the mobilisation of significant resources to address the logistical challenges that this geographically dispersed oil spill presented. In addition, the activation of the State Disaster Management Group enabled political, economic and community issues to be addressed at a whole-of-government level. The oil spill response effort was substantial and included numerous state and local government agencies, and after 10 weeks of concerted effort, the oil spill response was successfully concluded.

The incident presented a number of challenges and learning opportunities regarding the bringing together of traditional oil spill response procedures with broader disaster management arrangements. These need to be addressed to realise improvements in a joint response in the event of a similar incident in the future. A summary of findings is provided to identify lessons learned and potential issues.

A number of recommendations are also proposed. The Queensland Plan requires amendment to include a more integrated approach to oil spill response arrangements. Local governments are key stakeholders in an oil spill response, and the relationships and responsibilities of local government and Maritime Safety Queensland could be clarified and formalised. A more inclusive approach promoted by Maritime Safety Queensland would also see a broader focus and stronger recognition of environmental issues, partnering more closely with the Department of Environment and Resource Management. Better utilisation of internal departmental resources in supporting oil spill incidents will also assist.

There is an opportunity for this incident to set a precedent based on the lessons learned from a combined approach. The benefits identified through this combined response may well result in joint arrangements being activated in the future. The integrated response provided a capability greater than the sum of its individual parts. This was a crucial lesson.

This report also proposes an 'escalation model' to identify the 'trigger' for future activation of joint disaster management arrangements in support of an oil spill response. The report also identifies command and control arrangements that could be implemented to better manage joint arrangements in future, where Maritime Safety Queensland maintains overall coordination responsibility, supported by disaster management resources. These arrangements address strategic, operational and tactical levels.

## **2 Introduction**

*“The Pacific Adventurer incident was a once in 50 year event which occurred in a highly political environment”.*

*Debrief participant*

This report provides an independent assessment of how Queensland’s Disaster Management System supported the oil spill response following the discharge of oil by the *Pacific Adventurer* into the Coral Sea off Brisbane on 11 March 2009. The assessment is based on the Terms of Reference provided by the Department of Transport and Main Roads (Attachment One).

The report draws on:

- feedback collected during debrief sessions conducted with oil spill response participants in May-June 2009 following the incident,
- separate consultations with key people and organisations involved in the oil spill response in July 2009; and
- an examination of Queensland’s disaster management and oil spill response plans and arrangements, and related reports and articles.

The findings outlined in this report have informed recommendations that are aimed at improving the interoperability of Queensland’s disaster management and oil spill response arrangements, thereby enhancing the effectiveness of Queensland’s response to future oil spill incidents that are of a level of magnitude and complexity requiring disaster management support arrangements.

## **3 Purpose and Objectives**

The objectives of the review are based on the Terms of Reference and are to:

- assess how well the State Disaster Management System integrated with the National Marine Oil Spill Contingency Plan (and the Queensland Coastal Contingency Action Plan) in response to the *Pacific Adventurer* incident;
- identify what went well and what could have been improved specifically in relation to the disaster management support for this oil spill response;
- identify areas for improved coordination *between the logistic* and technical support of future oil spill incidents of similar magnitude and complexity; and
- propose recommendations to enhance the response to future potential oil spill incidents that require State Disaster Management System support.

## 4 Background

At approximately 3.15am on 11 March 2009, the Hong Kong flagged *Pacific Adventurer* lost 31 containers of ammonium nitrate overboard, approximately seven nautical miles east of Cape Moreton. This ruptured the ship's fuel tanks, causing heavy fuel oil to leak into the Coral Sea. The existence of oil in the water was reported by the ship to the Brisbane Harbour Master at approximately 5.00am that morning.

The enormity of the spill was not immediately realised, as initial reports from the vessel indicated a relatively small oil spill of 20-30 tonnes, however, this was later revised to 271 tonnes.

Significant quantities of oil were deposited by tidal and weather conditions on the coastline south of Cape Moreton. The eight kilometre area south of Cape Moreton was the most heavily affected, and the following 17 kilometre area was also lightly oiled. North of Cape Moreton, the rocky foreshore area between the cape and North Point was lightly oiled, with some suspended as emulsified mousse.

Smaller quantities of oil also impacted the eastern beaches on Bribie Island and the Sunshine Coast from Kawana to Marcoola. In total approximately 70 kilometres of these beaches were lightly oiled with significant quantities of tar balls (weathered oil).

This incident is the largest oil spill in Queensland waters since the ship *Oceanic Grandeur* spilled 1,100 tonnes in Torres Strait in 1970. Other notable oil spills in Queensland's recent history include the *Pax Phoenix* at Holbourne Island in 2001 (1,000litres); the *Pacific Quest*, Border Island in 2002 (70km slick); and *Global Peace* in Gladstone in 2006 (25 tonnes). There have also been numerous minor oil spill incidents during this period.

On 13 March 2009, when the full extent of the *Pacific Adventurer* oil spill was realised, the Queensland Government declared Moreton Island, Bribie Island, and the southern area of the Sunshine Coast a disaster area, under *Queensland's Disaster Management Act 2003*.

This was the first time that a disaster declaration had been made in Queensland under such circumstances, and this precipitated a bringing together of Queensland's disaster management arrangements with national oil spill arrangements.

The contextual circumstances surrounding the *Pacific Adventurer* oil spill were unique.

The incident occurred two weeks after parts of the Moreton Bay Marine Park were upgraded in conservation status and 10 days prior to a State election. The specific gravity of the oil spilt meant that it remained largely submerged until it came into contact with land, making early assessment difficult. The heavy weather and rough seas generated by ex Tropical Cyclone Hamish, also did not help situational awareness early. The oil spill occurred in close proximity to highly populated areas and impacted on commercial, tourism and recreational interests. The highly conspicuous oil spill was within easy reach of media helicopters and the incident gained intense media interest and political commentary in the lead-up to the 2009 election. The impact of this cannot be understated.

What began as a chemical spill and a marine hazard to navigation became a multi-faceted disaster event. Inclement weather limited response options and hampered early situational awareness. The incident resulted in 70 km of contaminated shoreline across multiple locations, some of which were remote and difficult to access. This presented significant logistical challenges. The incident also occurred at the tail end of a cyclone which had already depleted disaster management staff resources, particularly in local government.

The logistical challenges were considerable, particularly on Moreton Island which is a remote sand island. Clean-up operations were sustained for over 10 weeks with the 'response' officially completed on 19 June 2009.

The activation of Queensland's disaster management arrangements enabled the rapid provision of logistical support to assist in the oil spill response. The collaboration between Queensland's disaster management arrangements with Queensland's oil spill response arrangements has established a precedent for responses to future large oil spills.

In this context and in the spirit of continuous improvement, this experience provides a unique opportunity to identify lessons as to how Queensland's response to such events can be optimised in the future.

## **5 Methodology**

The information and research methods used to undertake this review included:

- a series of debrief sessions held with a broad range of stakeholder representatives from organisations involved in the oil spill response. A list of debrief sessions is at Attachment 2;
- follow-up interviews with key stakeholders in July 2009. A list of the stakeholders interviewed is at Attachment 2; and
- review of relevant plans, agreements and associated documents.

The review was not intended to:

- collect and analyse new data associated with the incident;
- undertake detailed research on like incidents here or overseas;
- interview new stakeholders or experts in the field; or
- provide detailed analysis and recommendations regarding disaster management as it relates to issues other than the incident under review.



## 6 Existing Arrangements

### 6.1 National Oil Spill Arrangements

Australia's oil spill response arrangements are mature and formalised. A *National Marine Oil Spill Contingency Plan* (National Plan) has been in existence since 1973 and has been formalised under an Intergovernmental Agreement which was signed in May 2002 (although this Plan is not statutory). This Agreement accords with International Maritime Organisation (IMO) conventions regarding pollution from ships.

Queensland is a signatory to this Agreement, and Maritime Safety Queensland is the State's designated 'combat agency' responsible for leading the response in the event of an oil spill incident.

Australia's oil spill arrangements are administered by the Australian Maritime Safety Authority (AMSA), and have been tested during significant marine incidents both within Queensland and throughout Australia. The National Plan is overseen by a National Plan Management Committee (Queensland is represented on this Committee) which reports to the Australian Transport Council through the Australian Maritime Group and the Standing Committee on Transport.

Under the national arrangements, AMSA is responsible for providing technical advice and logistics support, where needed, to other jurisdictions in the event of an incident. AMSA administers a National Response Team which deploys experienced operators with oil spill expertise to assist States and the Northern Territory by enhancing capacity and augmenting local resources in oil spill incident response. AMSA also administers stockpiles of equipment at national resource centres located around the coastline to assist in oil spill control and recovery, as needed. There is also a national training program for government and industry personnel on national oil spill management arrangements.

Based on the governance arrangements and responsibilities outlined in the National Plan, Queensland (through Maritime Safety Queensland) has developed the *Queensland Coastal Contingency Action Plan* (Queensland Plan) which outlines the response arrangements in the event of an oil spill in Queensland coastal waters. The Queensland Plan is overseen by a State Committee comprising representatives from Queensland Government agencies; which meets bi-annually to review and update the Plan.

A number of sub-ordinate plans support the Queensland Plan, including regional 'area-specific' contingency plans (eg: for Torres Strait and the Great Barrier Reef), and 'first strike' contingency plans at key ports.

Fig 1.0 shows the multiple plans associated with oil spill response arrangements.



*Fig 1.0 – Oil Spill Response Planning Hierarchy*

The national oil spill arrangements are supported by Queensland legislation (*Transport Operations Marine Pollution Act 1995*) which appoints a State Marine Pollution Controller (SMPC) to direct and coordinate an oil spill response in Queensland coastal waters.

Under the national arrangements, all relevant jurisdictions use common, specifically designed command and control arrangements to manage oil spill responses, known as the Oil Spill Response Incident Control System (OSRICS). A schematic of the OSRICS structure is at Attachment Three. This is based around a centralised command and control structure which can be escalated or reduced as the scale of the response increases or diminishes. OSRICS is designed to be ‘scalable’. That is, the functional elements can be expanded or contracted to meet the demands of the incident.

In line with the national arrangements, Queensland’s oil spill arrangements are based around a ‘single agency’ model with Maritime Safety Queensland (MSQ) the primary ‘combat agency’. Ports have an agreed responsibility to provide first strike response within port limits. In the event of an oil spill:

- a State Incident Control Centre (SICC) is established comprising the Marine Pollution Controller and support staff (from MSQ);
- the State Committee meets to provide support to the SICC as required; and
- an Incident Control Centre (ICC) is established at or near the location of the oil spill/clean-up site, comprising the Incident Management Team (IMT) under the direction of the Incident Controller (for example, Harbour Masters).

The national oil spill arrangements and plans reflect the technical nature of oil spill response, and focus specifically on response (clean-up).

Over the past 36 years, the national arrangements have fostered the development of a strong oil spill ‘community’ which understands oil spill response. A ‘vertically integrated’ and mutually supportive network of organisations and people has developed Australia-wide, which provides a ‘self contained’ national capability.

Standard practice after any oil spill incident is for the AMSA to appoint an independent Incident Analysis Team (IAT) to review the effectiveness of the incident response and to make recommendations about improvements to the National Plan arrangements in light of findings. One of the terms of reference for the IAT’s review of the *Pacific Adventurer* incident has been to “*review the effectiveness and contribution to the response of the declaration of a disaster situation on 12 March, under the Queensland Disaster Management Act 2003, covering the areas affected by the oil spill*”. The relevant findings of the IAT should be considered in conjunction with the findings outlined in this report.

## **6.2 Queensland’s Disaster Management Arrangements**

Queensland’s disaster management arrangements have been in place since 1975, initially under the *State Counter Disaster Organisation Act 1975* and, more recently, under the *Disaster Management Act 2003*. They are administered by the Department of Community Safety (through Emergency Management Queensland) and are based around a strong partnership with local governments who develop local disaster plans and provide and manage the resources needed to respond to local incidents.

Disaster management arrangements are based on escalating levels of response from ‘the bottom up’ where local governments plan for and respond to local incidents where they can, and defer to a ‘district’ level for support in larger scale incidents if required. If incidents are beyond the capacity of district level resources, ‘state’ level resources are activated to coordinate response support from government agencies and to seek Australian Government support if required.

This ‘bottom up’ approach devolves responsibility to local governments to develop, test and, where necessary, implement Local Disaster Management Plans to address local, foreseeable risks. For local governments with marine environments, this could include support to local oil spills, in particular foreshore clean-up.

In addition to local and district level plans, ‘threat-specific’ plans are developed at the state level which detail threat-specific disaster response arrangements. *Oil spill at sea* is one of these threat-specific areas and acknowledges the maritime expertise of Maritime Safety Queensland.

In the event of a state level activation of the Disaster Management System, the State Disaster Coordination Centre is activated, where representatives from government agencies collocate to coordinate logistics support to assist response activities. The State Disaster Management Group (SDMG), comprising Directors-General of Government agencies, also meets to address strategic decision-making and coordination. The SDMG is Queensland’s pre-eminent disaster response group and is chaired by the Director-General, Department of the Premier and Cabinet.

Under Queensland's disaster management arrangements, operational coordination responsibility rests with the relevant District Disaster Coordinator (a designated senior police officer) who coordinates the incident response at an operational level, with support from the broader disaster management organisation. In most cases, Regional Harbour Masters attend District Disaster Management Group meetings and enjoy good relationships with this fraternity. Further work is required to strengthen these relationships.

It is not necessary to formally declare a disaster situation to activate the disaster management arrangements. Disaster management arrangements can be activated at the various levels as required. Local and district level activation can be initiated by the chair of a local disaster management group, or by the District Disaster Coordinator at the district level. At state level, the Disaster Management System can be activated through either the Chair or Executive Officer of the State Disaster Management Group.

However, in the event of a significant incident, the Premier or the relevant Minister can declare a disaster situation to provide the necessary powers to deal with the situation (for example, to remove people from harm, etc). The *Disaster Management Act 2003* defines a disaster as, inter alia, a serious disruption that requires a significant coordinated response to help the community recover from the disruption (which includes widespread or severe damage to the environment).

Although the *Pacific Adventurer* incident was the first time Queensland's disaster management arrangements have been activated to support an oil spill response, these arrangements have been activated to support a number of other incidents/disasters in recent history, including citrus canker disease; equine influenza; and Pandemic (H1N1) 2009 (Human Swine Influenza). In these examples, the technical response 'lead agency' (eg: Queensland Health; Department of Primary Industries and Fisheries) maintained overall incident control, with the disaster management arrangements (coordinated through EMQ) providing the required logistics support.

In contrast to the national oil spill arrangements, Queensland's disaster management arrangements address both response and recovery. The National Plan has a facility for the recovery of discharge expenses associated with clean-up response, limited environmental monitoring costs, and legal costs associated with prosecution.

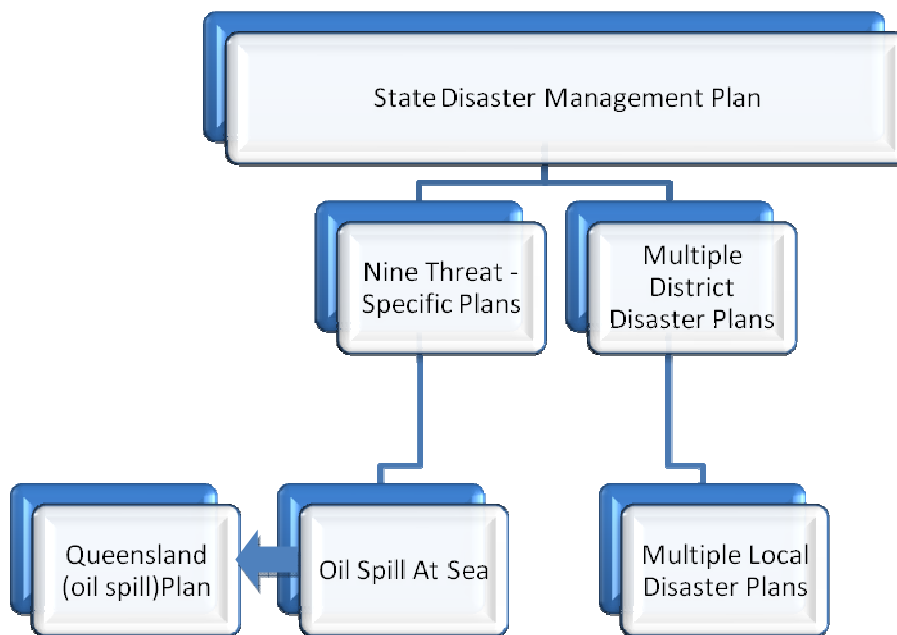
Queensland's *Disaster Management Act* (and associated management plans and policy) is currently undergoing a review and the recommendations from this report may intersect with some of the issues identified in that review.

### 6.3 Queensland Disaster Planning Framework

In terms of disaster planning, Queensland’s oil spill arrangements are a recognised component of Queensland’s disaster management planning arrangements.

Queensland’s disaster planning hierarchy includes nine ‘threat-specific’ areas and relevant government agencies are assigned responsibility to develop threat-specific plans. One of these threat-specific areas is *oil spill at sea* and the Department of Transport and Main Roads (through Maritime Safety Queensland) is the designated responsible agency<sup>1</sup>.

The Queensland Plan, developed by MSQ under the national oil spill arrangements, is also the state level threat-specific plan addressing the threat of an oil spill at sea.



*Fig 2.0 - Qld Disaster Planning Framework*

Whilst the Queensland Plan is a part of Queensland’s disaster management planning framework (Fig 2.0), it is developed under the auspices of the national oil spill arrangements. It does not refer to Queensland’s disaster management arrangements (other than on the front cover) and joint arrangements have not been exercised. The Queensland Plan is a stand-alone plan where MSQ is the designated combat agency, liaising with AMSA if additional support is required.

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<sup>1</sup> SDMG Publication Disaster Management Arrangements in Queensland – An Overview dated Sep 2008

However, at a local and district level, oil spill arrangements are included in general disaster management planning:

- Local Disaster Management Groups develop Local Disaster Plans and respond to incidents and disasters within their local government area. These 'all hazards' plans include oil spills where this has been identified as a foreseeable risk, and local MSQ staff train and advise local government staff on oil spill recovery techniques and arrangements from time to time.
- Harbour Masters attend District Disaster Coordination Group meetings (although they are not formal members and need to be more participative), where District Disaster Plans and arrangements are developed and reviewed.

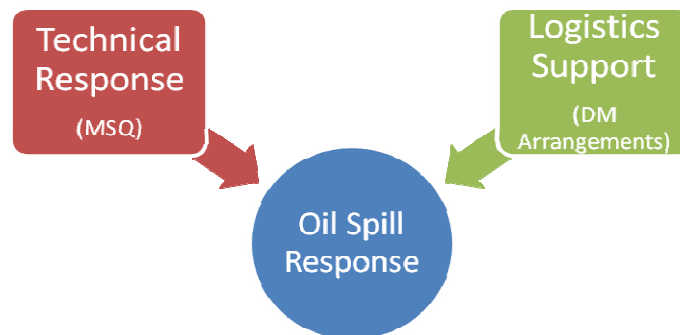
Therefore, oil spill response is integrated as part of disaster management arrangements at a local government level, although the preparation, planning and level of training undertaken varies from group to group.

## 7 Structure of Incident Response – *Pacific Adventurer*

Upon notification of the incident (11 March 2009), Maritime Safety Queensland established incident control arrangements under the *Queensland Plan*. On 13 March 2009, a disaster declaration was invoked by the Premier (and the state level disaster management arrangements were activated) to provide the authority needed to close oiled beaches (particularly Moreton Island) to visitors and to commandeer resources, if required, to ensure effective response to the incident. This declaration allowed, for example, immediate access to accommodation on Moreton Island and the use of ferries for transportation, should it be required.

The scale and duration of the *Pacific Adventurer* incident required significant logistical support to assist the oil spill clean-up, and the activation of Queensland's disaster management arrangements quickly mobilised whole-of-government, multi-agency resources.

For the first time, Maritime Safety Queensland's role was primarily to address the technical response requirements of an oil spill response; while Queensland's disaster management arrangements were activated to provide the logistics support to assist the technical response activities.



*Fig 3.0 Combined Oil Spill Response Arrangements*

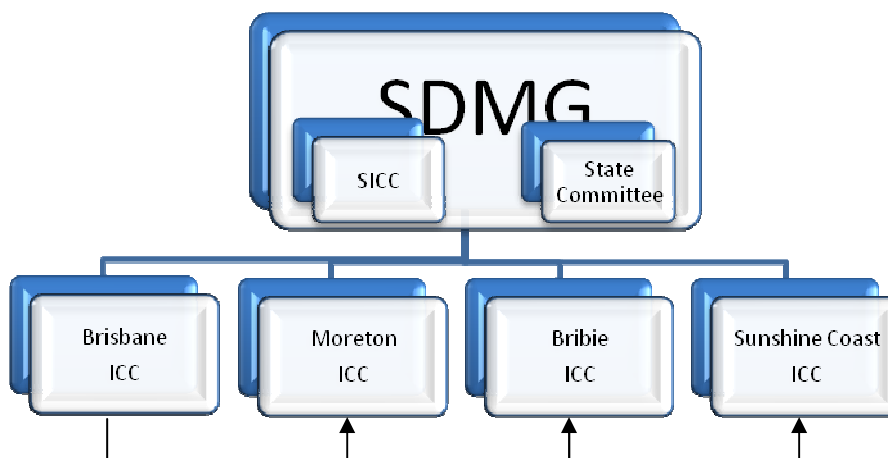
The overall command and control structure comprised:

- the SDMG/State-level ICC which provided overall operational coordination (this group met twice daily in Mineral House for a six week period).
- three semi-autonomous ICCs undertaking operations on-site within their respective oil-affected areas; and
- a central Brisbane-based ICC (referred to as the BICC) providing logistics support to the other three field-based ICCs.

More specifically, the command and control arrangements were as follows:

- A State Incident Control Centre (SICC) was established at Mineral House under the control of the State Marine Pollution Controller. This was initially supported by the State Committee which met on the morning of the incident. Following the disaster declaration, the SICC and State Committee were subsumed by the State Disaster Management Group (SDMG) which met at Mineral House twice daily. In broad terms, this group became the overall coordination group, dealing directly with the ICCs; and providing a centralised information centre for the media and interested parties.
- The Brisbane Incident Control Centre (BICC) was established at Pinkenba (Harbour Master’s headquarters with incident control facilities) to plan and coordinate response activities. Although initially established as the primary Incident Control Centre, it evolved into a logistics planning cell to support the other ICCs when they were established (particularly Moreton Island because of the significant logistics challenges), and was also the liaison point for the Master of the *Pacific Adventurer* Vessel. The Harbour Master was notionally in charge of this centre, however, the District Disaster Coordinator led the logistics function and had the predominant role. In broad terms, this mirrored a disaster management structure, aimed at supporting the ICCs logistically, rather than controlling or planning overall operations.
- Incident Control Centres (ICCs) were established at Bribie Island, Moreton Bay and the Sunshine Coast to manage oil spill response activities in their own area of operations, under the direction of an Incident Controller (senior officers from the Department of Transport and Main Roads (DTMR) and the Port of Brisbane with knowledge of OSRICS and oil spill response). Disaster management personnel from the (then) Department of Emergency Services were deployed to these centres to provide logistics support as required. In broad terms, these ICCs mirrored the OSRICS structure, but with disaster management resources and systems being used in the logistics support functions. This meant that, in effect, four incident control centres were activated.

The command and control structure that emerged is as follows:



*Fig 8.0 Pacific Adventurer Incident Command and Control Arrangements*



## 8 Observations

The following observations are made regarding the incident response. These inform the findings which, in turn, inform the recommendations to improve future responses to oil spill incidents.

The observations provide a reflection of relevant stakeholder feedback combined with the observations of the reviewer and author of this report.

### 8.1 Response Context

The *Pacific Adventurer* incident demonstrated that disaster management arrangements can be combined with national oil spill arrangements to provide the logistics support which is required in large-scale, complex oil spill incidents.

This incident also highlighted the impact that the media, public debate and political involvement can have on oil spill response activities. These could be termed ‘collateral influences’ and include the broader political, economic, environmental and community impacts associated with the incident. These can gain momentum through the media and public debate, given the right circumstances – and the *Pacific Adventurer* incident provided these.

In a routine oil spill response scenario (for example, a contained spill in a port), the combat agency, using the OSRICS incident structure, would manage the technical response, logistics support and ‘collateral issues’ (if there were any). In these circumstances, the technical response would be the primary ‘driver’. Additional support would be provided through AMSA, if required.

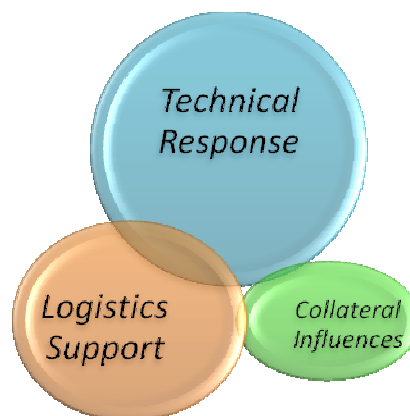


Fig 4.0 Drivers in a Routine Oil Spill

The *Pacific Adventurer* incident, however, was not routine:

- The logistics support requirements were substantial, particularly on Moreton Island where personnel and materials had to be ferried to the island and transported across sand to the oiled areas. Large numbers of workers required accommodation, supplies and food etc over a sustained period.

- By comparison, the technical response issues were, relatively straight-forward, as cleaning an oil spill from sandy beaches (as was predominantly the case in this incident) is relatively simple when compared to cleaning oil from coral reefs or mangroves.

In this incident the ‘collateral issues’ were also significant and influenced the technical response and logistics support priorities. Some examples include:

- Clean-up priorities were focused on high visibility areas (beaches) cognisant of media reporting and public opinion.
- There was urgency around the clean-up (in response to media reports of inaction) which did not align with accepted practice. This resulted in re-cleaning some areas of beach as more oil was deposited.
- Oil clean-up priorities on Moreton Island included having clean beaches in time for the Easter break, in response to economic impacts in the tourism industry.
- The intensity of media coverage inadvertently encouraged volunteers to go to beaches to offer assistance with wildlife rescue and the oil spill clean-up. This is counter to the Queensland Plan, and was not the preferred approach from a technical response perspective.
- The implications of using heavy equipment on beaches for the oil spill clean-up became a political debate on local radio.
- Workers were dispatched to Moreton Island on some occasions before arrangements were in place to receive and employ them.

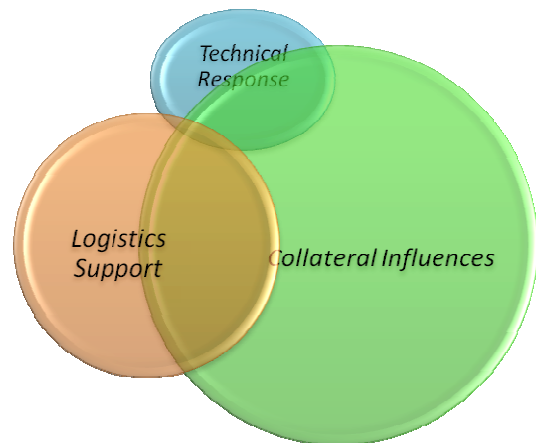


Fig 5.0 Drivers in Pacific Adventurer Incident

The *Pacific Adventurer* incident also demonstrated the broader ramifications that an oil spill can have on communities; for example, public concerns regarding seafood contamination which impacted on the local seafood industry, and closed beaches which impacted on the tourism industry. The immediate impact on wildlife as a result of this incident was low (only 16 oiled birds due to low bird density because of the preceding cyclone). However, this could have been a much more significant issue under alternative circumstances, adding further complexity.

All of these issues were not the main priority of the ‘combat agency’ or oil spill responders, however, they were legitimate issues that had to be managed. The ‘collateral influences’ required energy and resources that were well beyond the means of Maritime Safety Queensland to manage alone, and added further complexity to managing the response.

This oil spill showed that what might, at first, be viewed as an oil spill *incident* can develop into a much larger *event*, where the oil spill response is but one part. While command and control arrangements and resources are needed to manage the technical response and the logistics support, the broader collateral issues also need to be managed.

The activation of disaster management arrangements provided the resources needed to manage, not only the logistics support, but also the collateral issues. Involving Queensland's disaster management arrangements was a sound initiative which greatly assisted in achieving a favourable outcome.

## **8.2 Transition Points**

The national oil spill arrangements are well established, and the OSRICS system is an effective model for oil spill response. However, it is based on a 'single agency' model and its focus is specifically on oil spill response. As outlined in the Queensland Plan, MSQ is the combat agency (supported by AMSA and the Department of Environment and Resource Management (DERM)). This model is inherently limited in managing a large-scale, logistically complex incident similar to the *Pacific Adventurer* oil spill.

Queensland's 'all hazards' disaster management arrangements can be activated to support any disaster, including an oil spill response if required, to provide the logistics support and whole-of-government management of 'collateral issues'.

The 'trigger point' to transition from a 'single agency', MSQ-led response, to a multi-agency disaster management supported response is circumstantial. A 'size of spill' trigger point which is used in the national Plan (tier 1, 2 and 3 spills) focuses on the technical response only, and does not reflect the complexity of the response in terms of logistics support or broader issues, including recovery. There are many variables which may dictate a suitable trigger point or time, and the SMPC is best placed to initiate this.

## **8.3 Command, Control and Coordination**

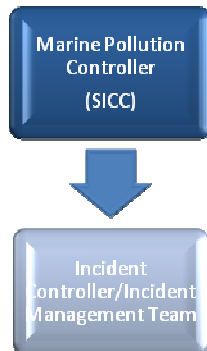
Prior to the *Pacific Adventurer* incident, Queensland's disaster management arrangements had never been activated to support an oil spill response. This, primarily, was because recent oil spill incidents have not warranted that level of support. Additional resources needed to support larger oil spill responses have previously been sourced through the networks established under the national arrangements (eg: the National Response Team).

In addition, the national oil spill arrangements (and the Queensland Plan) are self contained and are not designed to operate with other arrangements. Prior to the *Pacific Adventurer* incident, the activation of joint arrangements has not been a consideration.

The combining of disaster management arrangements and national oil spill arrangements, for the first time, initially caused some confusion primarily due to a lack of role clarity regarding command and control responsibilities. These issues were resolved over time through strong leadership and a strong sense of commitment from those involved.

The national oil spill arrangements (OSRICS-based model of command and control) is a centralised, 'top down' model. A State Marine Pollution Controller (MPC) directs and

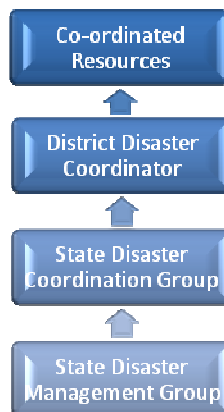
coordinates the State-level response; an Incident Controller (normally the Harbour Master) coordinates all operations in response to the incident and directs an Incident Management Team located within an Incident Control Centre (ICC) to develop plans, and to manage operations and logistics. This system is supported by standardised administrative forms and procedures, and is predicated on using trained personnel from within the oil spill community.



*Fig 6.0: National Oil Spill Response High Level Command Structure*

In contrast, the disaster management command and control arrangements are based around a decentralised, 'bottom up', multi-agency model. In a State level incident, the District Disaster Coordinator organises resources from a range of agencies (Regional and State level) to support the local Mayor and Local Disaster Management Group to manage activities in the area impacted by the disaster event. The State Disaster Coordination Group coordinates the provision of resources drawn from the State and National level to satisfy requests from the District Disaster Coordinator.

At the highest level, the State Disaster Management Group meets to identify resources from within or outside the state that may be used for disaster response operations.



*Fig 7.0 Disaster Management Arrangements*

The command and control arrangements used in the *Pacific Adventurer* incident were a combination of these two systems.

The highly charged political environment in the first days and weeks of the incident response resulted in the SDMG taking a strong role in decision-making, including at the

operational level. In effect, the SDMG merged with the SICC and took a strong interest in operational issues.

Whilst sufficient planning resources were available at the BICC, they were under-utilised, and the integration of disaster management logistics support from day two of the incident response was an initial distraction. In addition, there was limited situational awareness and an initial focus on immediate response activities. As a result, the Incident Control Centres that were established at Moreton Island, Bribie Island and the Sunshine Coast developed their own plans and priorities based on emergent local conditions.

Technical communications difficulties (eg: poor radio and phone reception on Moreton Island) in the first week resulted in the SDMG/SICC seeking information directly from the Incident Control Centres at Moreton, Bribie Island and the Sunshine Coast. This further diminished the BICC's role and although the BICC had significant multi-agency technical expertise available, their lack of situational awareness resulted in the deferment of many significant decisions to the highest level, and the ICCs undertaking their own planning and operations control. The respective ICCs achieved excellent results in a highly dynamic environment.

This marginalised the BICC, and caused some difficulties with the relationships between BICC and the three ICCs. Decisions were being made by the SICC/SDMG and the three ICCs, without consultation with the BICC. Consequently, the BICC's role morphed into a logistics support cell servicing the three ICCs. In the absence of an overall 'coordination centre' to manage the operational aspects at a holistic level, the SICC/SDMG became the overall coordination point.

Confusion is normal in the early stages of any incident, and under the circumstances, it is not surprising that there was confusion around the command and control arrangements as these had never been tested or scripted before. The SICC published a memorandum during the first week of the incident to clarify command and control arrangements, however these were not well known or understood. Because there was an urgency to gather information quickly to satisfy media interest, existing (familiar) departmental chains of command were often used in preference to following the new command and control arrangements.

The public interest in the incident and associated external pressures meant that a high degree of flexibility was required throughout the prolonged incident response. Whilst the command and control arrangements were not strictly 'textbook', the adaptability and commitment from personnel involved was excellent and was instrumental in achieving a satisfactory outcome.

#### **8.4 Systems Compatibility**

The OSRICS administrative support arrangements (forms and templates etc) used in oil spill responses differ from those in disaster management arrangements. The BICC was activated at Pinkenba and initially implemented OSRICS-based administration systems.

However, following the disaster declaration, the BICC transitioned to the disaster management administration system which was managed by disaster management personnel.

This caused a distraction at time when the BICC was attempting to gain situational awareness and to develop incident response plans. This transition took a number of days, and ongoing compatibility issues diverted attention away from response planning to sort out internal systems differences.

The “Task Tracker” system was activated at the BICC later in the response, and this proved valuable to managing tasking requests to ensure all tasks were issued and completed.

Of particular significance in terms of systems compatibility are the differences in the situation reporting, and cost recovery arrangements.

- Under the national oil spill arrangements, costs are recovered through the Protection and Indemnity Club which has unique and specific criteria. Under the disaster management arrangements, costs are recovered under the National Disaster Relief and Recovery Arrangements which have quite different criteria. The differences between these systems are significant in determining and recording costs to be recovered.
- Sitrep formats differ between the two systems. Disaster Management System sitreps were used, and these resulted in voluminous documents (some 30-40 pages) which were resource intensive to produce; did not include environmental input (these were produced separately); and were not effective in providing a short ‘snap-shot’ of the situation.

The incident identified that duplicated arrangements should not be used. It also identified that there is little compatibility between disaster management and oil spill recovery administrative requirements and systems, and limited understanding of differences by the respective areas of operation.

The integration of the two systems did present operational and administrative challenges but these issues were overcome due to the strong commitment of personnel and a determined focus to complete the task.

## **8.5 Environmental Input**

Oil spills are an environmental issue. Under Disaster Management arrangements, once oil spill clean-up response is concluded, a second phase known as ‘environmental recovery’ commences. The National Plan does not provide for a ‘recovery’ phase after clean-up operations have concluded. This is a key difference between the two systems. Effective oil spill response will mitigate many of the potential environmental issues in the longer-term recovery phase.

The National Plan identifies the protection priorities as human health and safety, followed by environmental issues. The SMPC, as General Manager, Maritime Safety Queensland, is inherently aware of safety-related issues, and specific environmental advice at the

strategic level could assist in determining the overall strategies to be used in incident control.

Strong environmental input at all levels of an oil spill response is necessary. The *Pacific Adventurer* incident identified the need for effective environmental advice. A Scientific Advisory Panel was formed to provide independent environmental advice, and environmental consultants were engaged to identify priorities and to make environmental assessments. This is the first time in Australian history that a Scientific Advisory Panel has been established to assist with an oil spill response, and this may set a precedent for future responses to large-scale oil spill events. Media interviews addressed environmental issues as part of the oil spill response.

The Queensland Plan acknowledges the role of DERM (formerly EPA) in land-based oil spills (para 1.10.2), and in seaborne oil spills (para 1.10.3), but it does not reflect a strong partnership approach. The OSRICS structure also includes an environmental unit (with an Environmental Scientific Coordinator) and a wildlife unit, but it is one of a number of areas. It could be argued that these arrangements do not adequately acknowledge the importance of environmental issues in oil spill response arrangements.

Environmental advice and input should be available at all levels of the oil spill response:

- at a strategic level to the SMPC in the SICC, so that strategic decisions are environmentally sound;
- to the IC at the BICC (operational level) so that incident action plans are environmentally sound; and
- at the tactical level with SCAT teams reporting back, through their Site Controllers, to the BICC.

The environmental input from DERM during the *Pacific Adventurer* incident did not appear to be as effective as it could have been. Twelve DERM staff were in the BICC, and 255 DERM staff were engaged in the response overall, however, their input was not well integrated into response operations.

The command and control arrangements at the BICC meant that the environmental expertise (12 personnel) was not utilised effectively. Rather than being integrated with their local ICCs, DERM resources maintained strong functional and departmental lines of reporting. For example, environmental situational reports (sitreps) were developed separately from their ICC sitreps, and environmental plans produced by the Environmental Scientific Unit in the BICC were sent for departmental approval before they were released, with subsequent delays. An important organisational issue for multi-agency oil spill response is that the Incident Controller requires the support of all agencies. This will require Government participants to report directly to the Incident Controller (operationally) for the period of their involvement. Note, these arrangements are consistent with those taught at all National Plan training courses.

Whilst DERM is a member of the State Committee, immediate environmental scientific advice would be useful to develop enhanced situational awareness during the early stages of an incident, at a strategic level. Consideration could be given to include an

environmental scientist as a permanent member of the SICC, to be located in the SICC when it is activated.

The Memorandum of Understanding between MSQ and EPA (DERM) has expired and requires review (this MOU relates specifically to response to land-sourced oil spills). This provides an opportunity to review the roles and relationships between MSQ and DERM, to promote stronger environmental input into strategic and operational decision-making in oil spill response. It should also be noted that DERM has a responsibility to undertake foreshore clean-up of areas abutting national parks which should also be acknowledged in the MOU.

A further key area of difference between the Disaster Management System and the National Plan arrangements is that Disaster Management arrangements do not include an 'environmental' function/team within their planning cells. In the case of the *Pacific Adventurer*, this system difference manifested when the BICC's focus changed to logistics support, and normal planning functions (including environmental planning) ceased as the Disaster Management administrative system did not factor in environmental advice.

### **8.6 Departmental Capacity**

Within DTMR, disaster management arrangements and oil spill recovery arrangements have not, historically been integrated. Prior to the *Pacific Adventurer* incident, the Department's disaster management function (within the Transport Security Unit) has not been activated to support an oil spill response. This exemplifies the paradigm of separation between oil spill response arrangements and disaster management arrangements, and identifies an opportunity to include DTMR disaster management staff in oil spill response coordination.

At a structural level, this disconnection has been recognised, and two areas of the Department of Transport and Main Roads (MSQ and the Transport Security Unit) will soon become more structurally aligned, providing the potential for better operational integration and interoperability.

The 'single agency' model which underpins the national oil spill arrangements and the Queensland Plan do not promote 'horizontal integration' across the department. However, DTMR has a considerable workforce that can be engaged at short notice to assist in oil spill recovery if required. The engagement of RoadTek personnel to assist on Moreton Island during the *Pacific Adventurer* incident is an example of the benefit of engaging internal resources.

There is potential for MSQ to capitalise on departmental resources to assist in incidents requiring large numbers of human resources. This will require some basic training for key personnel to ease induction and integration issues.

### **8.7 Local Government Engagement**

The *Pacific Adventurer* incident demonstrated that local governments are key stakeholders in the event of an oil spill response. It is at the local government level where oil spill response and local disaster arrangements currently intersect, and this area provides



potential to achieve better integration between oil spill response, and disaster management arrangements, at a tactical level. Local government, however is not acknowledged in the Queensland Plan.

First Strike Oil Spill Response Plans for key ports (supporting plans under the Queensland Plan) place the responsibility of shoreline clean-up with the relevant local councils. Therefore councils have a vested interest in maintaining skills in this area. MSQ train local government personnel in oil spill recovery techniques (from time to time), and attend Local Disaster Management Group meetings to provide awareness of the national arrangements.

Local governments play a key role in planning for and resourcing oil spill response. They can provide the supervised personnel (some of whom may be appropriately trained) to undertake the labour-intensive shoreline clean-up work that was required in the *Pacific Adventurer* incident.

A 'Protocol Agreement' is in place between the Department of Transport and Main Roads, and the Local Government Association of Queensland (LGAQ) (signed August 2008) which addresses common areas of interest. One of these is "marine pollution prevention, response and emergencies", however, this does not provide sufficient detail to clarify expectations between the parties regarding oil spill response.

MSQ could increase their engagement with local government, and developing local government capability and awareness of oil spill response best practice would benefit future incidents which combine national oil spill arrangements with Queensland's disaster management arrangements. This could be clarified under a separate oil spill MOU.

## **8.8 Contingency Planning**

The Queensland Plan identifies that Brisbane (Moreton Bay) is the State's highest risk area in terms of oil spills. This high risk rating is due to oil tanker traffic transiting to and from Brisbane's two oil refineries and terminals. Last year (2008), there were 268 crude oil or oil product ship movements to and from the Port of Brisbane.

A supporting plan to the Queensland Plan is the *Brisbane Oil Spill Contingency Plan* which addresses oil spill response arrangements within the Port of Brisbane limits. The Plan states that oil spills that occur outside the Port of Brisbane limits are the responsibility of MSQ and will be addressed under the Queensland Plan.

Ironically, the *Pacific Adventurer* did not enter the Port of Brisbane limits and was in transit from Newcastle enroute to South East Asia. The oil spill occurred outside Queensland's coastal waters, however, the effects were felt on Queensland beaches.

While the *Pacific Adventurer* incident is the largest for many years, the likelihood of another incident of similar magnitude remains. An oil tanker incident could result in a much more devastating oil spill than the 271 tonnes from the *Pacific Adventurer*. As Australia's dependence on foreign oil increases (refined oil imports increased 20% last year) more oil tankers are likely to transit along the Queensland coast and this, combined with increasingly severe weather due to climate change, may increase the south east

Queensland risk profile further. An updated risk assessment may be required, in light of the *Pacific Adventurer* incident.

### **8.9 Notification Arrangements**

Notification of appropriate agencies within the oil spill community was efficient and effective following the reporting of the *Pacific Adventurer* incident. This notification included the State Disaster Coordination Centre, however, numerous government agencies who were later involved in the response advised that earlier notification would have been beneficial.

Alerting relevant stakeholders early is a key to effective multi-agency response if it is required in the event of an oil spill incident. The SICC membership could be expanded to include the DTMR disaster management representative, to advise the SMPC on disaster management activation arrangements, and to act as a conduit to notify relevant disaster management and departmental resources if required.

### **8.10 Resourcing of Key Positions**

Adequate resourcing of key command and control positions is essential to ensure the proactive management of issues. At the SMPC and IC level, effective deputy positions (second-in-charge and additional support positions) should be identified and resourced to provide these key decision-making positions with the capacity required to maintain situational awareness and to take a longer-term view where incident responses are drawn out over a protracted period.

The scale and duration of the *Pacific Adventurer* incident placed considerable strain on key positions, including the SMPC, without sufficient backup. This caused serious fatigue management issues.

## 9 Summary of Findings

The review identified that the support provided through the activation of Queensland's disaster management arrangements was essential to address the logistics challenges and the broader 'collateral issues' presented by the *Pacific Adventurer* incident, to enable the expeditious response and clean-up.

The collective view expressed was that if an incident of this scale occurred again, then activation of Queensland's disaster management arrangements would be required and, importantly, that a precedent had been set for future incidents.

The following list outlines the summarised relevant findings that inform the recommendations to follow. Findings of the review, in summary, include:

- The national oil spill arrangements are well established, and are based on a self-contained, vertically integrated network of organisations. This has not, historically, supported a State-based multi-agency approach to oil spill recovery (current practice provides that AMSA and other National Plan participants are called upon to assist with oil spill responses where required, however other agencies at the State level are not generally engaged outside of the Disaster Management process).
- Maritime Safety Queensland has knowledge and expertise in oil spill response, but has limited capacity to deal with large scale oil spill incidents without additional support. Queensland's disaster management arrangements provide the additional capacity to provide logistics support and to address whole-of-government issues, including recovery.
- The logistics support and 'collateral influences' associated with the incident required energy and resources that were beyond the means of Maritime Safety Queensland to manage alone, and added further complexity to managing the response.
- This oil spill showed that what might, at first, be viewed as an oil spill *incident* can develop into a much larger *event*, where the oil spill response is but one part.
- There is currently no model that can be used to trigger escalation arrangements to engage Queensland's Disaster Management System to support an oil spill response.
- The command and control arrangements used in the *Pacific Adventurer* incident was a hybrid model which 'emerged' over time, resulting in role ambiguity. This impacted all areas, including decision-making. The absence of a centralised planning role at the BICC was a significant contributor to command and control challenges at the outset, however these issues were overcome.
- The significant influence of 'collateral issues' promoted the involvement of the SDMG/SICC in operational decision-making. This resulted in the deferment of all significant decisions to the highest level.
- A command and control structure for joint arrangements between the national oil spill arrangements and Queensland's disaster management arrangements should be based on the national oil spill model, with overall coordination resting with MSQ,

and disaster management support being provided at the strategic, operational and tactical levels.

- Local governments are key stakeholders in oil spill response, and have a recognised role in foreshore clean-up. The relationship between local government and Maritime Safety Queensland can be strengthened, and made more formal, with roles and responsibilities more clearly articulated.
- There should be a stronger link between oil spill response arrangements and environmental issues. This would include a partnership-based approach between Maritime Safety Queensland and DERM to ensure environmental issues are integrated into oil spill response planning and decision-making at the strategic, operational and tactical levels.
- There is little compatibility between oil spill response and disaster management administrative arrangements, and duplicated systems should not be used.
- Consistent standard emergency management jargon and vocabulary must be used to ensure a common understanding of issues.
- Cost recovery arrangements differ significantly between disaster management and oil spill response arrangements.
- DTMR resources could be utilised to assist in an oil spill response, both in planning and response.
- Further work is required to refine or continuously improve joint arrangements e.g. discussion exercises

These findings are presented to inform the recommendations provided and to summarise the observations above.

## 10 Recommendations

The following recommendations are provided within the boundaries of the Terms of Reference provided by the Department.

It is recommended that:

1. MSQ and the State Committee review and update the Queensland Plan, in light of the *Pacific Adventurer* incident to:

- include escalated response arrangements to enable joint operations (see section 11) between national oil spill arrangements and Queensland's disaster management arrangements, to respond to large-scale incidents;
- outline how joint arrangements would operate, including combined command, control and coordination arrangements;
- include developing a *concept of operations* as a key step in response administration;
- acknowledge local governments as having a key role in oil spill response;
- articulate a stronger acknowledgement of environmental issues and the role of DERM at the strategic, operational and tactical levels;
- reference the Queensland Disaster Management Plan under section 1.11;
- modify section 4.1 to expand notification to disaster management representatives; and
- include reference to the recovery phase of disaster management arrangements to clarify the transition arrangements from the 'clean-up response' phase, to the 'recovery' phase including roles and responsibilities, and the resourcing of recovery activities.

2. The SICC membership should always include a representative from DERM (to provide scientific advice) and a DTMR disaster management representative; in addition to current members (the SMPC, the Deputy SMPC, and policy and legal advisors as appropriate), even for small incidents.

3. The SICC (DTMR disaster management representative) should alert all relevant 'disaster management' stakeholders in the event of an oil spill incident (irrespective of size) to ensure early notification and timely activation of disaster management support if required.

4. The SICC should develop a '*Concept of Operations*' as soon as possible to clarify command and control arrangements in a multi-agency response, recognising that each incident is unique.

5. The role and responsibilities of local governments in foreshore clean-up should be more clearly enunciated through:

- Development of a specific oil spill response Memorandum of Understanding between LGAQ and MSQ. This should include competency requirements and participation in oil spill response exercises; and
- Development of specific agreements directly between the Queensland Government and relevant Councils. This may be achieved through regional Contingency Plans which include clusters of regional Councils in key areas. Agreements should be developed to cover the whole Queensland coastline, commencing with the high risk/high ecological value areas of Moreton Bay and the Great Barrier Reef.

6. Harbour Masters should have regular contact with local governments to reinforce the principles of the MOU, gauge and organise training requirements, update the MOU where required, and build relationships between local and state Government personnel who may be called upon to respond to an oil spill.

7. Training requirements should be reviewed and shoreline clean-up response training should be conducted for relevant local government personnel.

8. An ongoing multi-agency discussion exercise program should be implemented to test and further refine joint arrangements between the national oil spill response arrangements and Queensland's disaster management arrangements, addressing the strategic, operational and tactical levels of command and control. Note, this program would also improve stakeholder relationships and educate stakeholders in the joint arrangements.

9. A risk assessment of oil spills from ships in Queensland waters should be undertaken to update the Queensland ports risk profiles referred to in the Queensland Plan.

10. The MOU between MSQ and DERM be reviewed and updated to clarify roles and responsibilities to ensure close collaboration in terms of oil spill response arrangements. This MOU should be expanded to include marine-based oil spills (in addition to land-based spills).

11. A working party comprising Emergency Management Queensland and Maritime Safety Queensland should be formed to identify areas of incompatibility in between current National Plan and State Disaster Management System administrative arrangements (including sitreps, and cost recovery arrangements), and develop improved administrative arrangements that can be used to better support future joint operations.

12. The membership and level of representation of the State Committee should be reviewed. The DTMR disaster management representative should attend State Committee meetings (as a member or observer) to promote integration, at departmental level, of oil spill arrangements with the broader disaster management arrangements.

13. The Disaster Management Plan should provide greater clarity on how threat-specific plans integrate with broader disaster management arrangements in terms of roles, responsibilities and administrative arrangements; and overall incident control arrangements when threat-specific plans are activated (for example, lead agency roles).

14. The role of the Environmental Sciences Coordinator at the site-based Incident Control Centre (in the Pacific Adventurer case it was Pinkenba BICC) should be reviewed so that environmental advice is made more directly available to the Incident Controller (the Harbour Master), in a timely manner.

Note, provided at Section 11 is a proposed model for combined oil spill and disaster management arrangements which augments the recommendations above. It is provided as an example to prompt further discussion.

- The model provides an example of criteria that could be used to assess likely ‘trigger points’ for activation of joint (combined) arrangements – the *complexity* of the incident (which is a subjective assessment) and the *number of agencies* involved in the response.
- This model could be used concurrently with three-tiered classification model outlined in the National Plan (and Queensland Plan) which classifies oil spills based on *size* (Tier 1 < 10 tonnes; Tier 2 10-100 tonnes; Tier 3 > 1000 tonnes) to help determine the magnitude of oil clean up resources and technical assistance required.

## 11 A Proposed Model for Combined Arrangements

### 11.1 Escalation Arrangements

A robust model of oil spill response must include the capacity to address the technical response, logistics support, and collateral influences. The complexity of an incident can be viewed on a continuum. At one end, routine, small scale incidents are addressed 'in-house' without disaster management assistance; at the other end, complex large scale incidents will require multi-agency assistance through the activation of the disaster management arrangements.

A proposed model is offered for consideration:

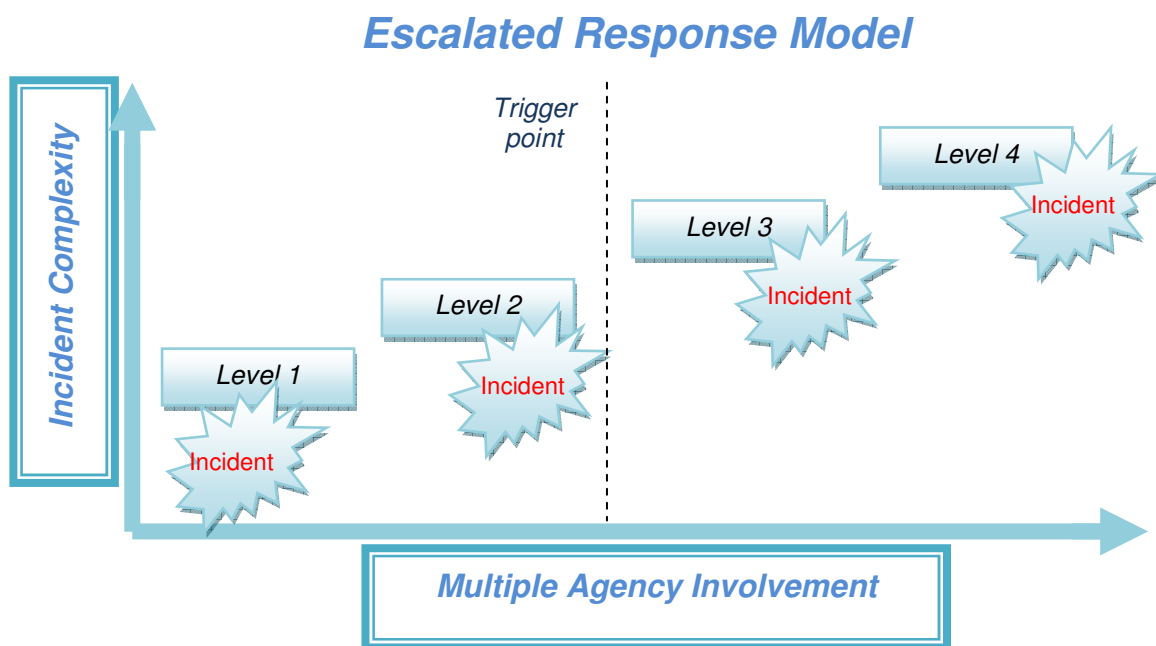


Fig 7.0 – Proposed Escalation Model

- **Level 1** Incidents (small, routine) would be managed by MSQ in conjunction with DERM and relevant local government resources, as required. Local Disaster Management Groups may be alerted in the early stages of response, even for small incidents, to keep them aware of the situation in case the initial oil spill amount is under estimated (as is sometimes the case with oil spill events).
- **Level 2** Incidents (large, routine) would be managed by MSQ in conjunction with DERM and relevant local government resources, assisted by the National Response Team and additional equipment from the national support centres, under the national oil spill arrangements. As with Level 1, Local Disaster Management Groups may also be alerted.
- **Level 3** Incidents (large, logistically complex) would require external logistics support through partial activation of the Queensland disaster management



arrangements. This level may require declaration of a disaster, or sustained input from the State Disaster Management Group. Disaster management support would be coordinated through the relevant District Disaster Coordinator, and the situation would be monitored through the State Disaster Coordination Centre.

- **Level 4** Incidents (large, logistically complex with collateral issues) would require whole-of-government logistics support and strategic management of collateral issues. This level may include a disaster declaration if required, and would require activation of the Queensland disaster management arrangements including regular input from the State Disaster Management Group to address collateral issues (The *Pacific Adventurer* incident would be classified as a Level 4 incident).

The model outlined above could be used in conjunction with the three-tiered classification model outlined in the National Plan which categorises oil spills based on size of spill. A Tier 2 (10-100 tonnes) or Tier 3 (> 100 tonnes) incident could be escalated to include Queensland Disaster Management arrangements, depending on circumstances. The State Marine Pollution Controller would be the appropriate authority to determine the level of activation.

### **11.2 Preferred Model of Command and Control - Pacific Adventurer incident case study**

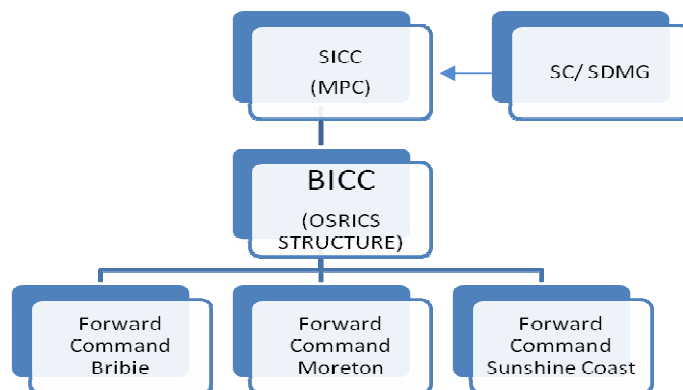
Effective command, control and coordination arrangements address three levels of decision-making and activity: strategic; operational; and tactical. A preferred model of command, control and coordination for the *Pacific Adventurer* incident would address these three levels, and would be based on the following principles:

- Overall coordination should rest with MSQ as the 'combat agency' in recognition of the technical nature of oil spill response, to ensure compliance with the various conventions, protocols, legislation, and cost recovery requirements. MSQ resources would be augmented through the National Response Team to provide a cadre of staff to perform this function.
- Overall command and control structure should reflect the national oil spill arrangements and be based on the OSRICS model, augmented by disaster management resources to manage the logistics support component, as required.
- Strategic control and direction should be provided by the State Committee/SDMG (depending on the scale of the incident), liaising with the SICC. The primary role of this group is to identify and manage the 'collateral issues'; undertake strategic stakeholder liaison; and address longer-term recovery issues using sub-groups as required.

A preferred command and control structure would comprise:

- *Strategic Level* - An augmented SICC established in Mineral House would comprise a small and specialised multi-functional team to provide strategic advice to the SMPC, and liaise with the State Committee/SDMG, and set the strategic direction for the oil spill response. This team would include:
  - Policy staff

- Legal staff
- An Environmental scientist (from DERM)
- DTMR disaster management staff (to notify appropriate members of the disaster management community of the incident; liaise with the SDCC to initiate disaster management activation if required; and initiate mobilisation of personnel from within the department to assist with the response arrangements, if required.
- DTMR media and communications staff.)
- *Operational Level* - A BICC established at Pinkenba (or other MSQ based near the site of the incident or clean-up activities), with the Harbour Master as Incident Controller with senior officers familiar with OSRICS and oil spill issues leading the Planning, Operations and Administration/Finance units; the DDC leading the Logistics unit, staffed by disaster management personnel using jointly-agreed integrated administrative processes. The role of the BICC would be to plan, resource and direct operations in the field.
- *Tactical Level* - Forward Command units established at Moreton Island, Bribie Island and the Sunshine Coast led by officers familiar with OSRICS and oil spill response arrangements, augmented with resources from the respective local governments, government departments, and contracted staff as required. The role of these units would be to implement the plans developed by the BICC.



*Fig 9.0 Proposed Command and Control Structure for the Pacific Adventurer incident  
(NB: Not all oil spill incidents will require (multiple) forward command posts)*

There would be a number of command and control arrangements that would be effective. The main issue is that these arrangements are collectively known and followed.

Therefore, as a priority, when the extent of an incident is known and the command and control arrangements are identified, the SICC should develop and promulgate a ‘*Concept of Operations*’ document which is the ‘blueprint’ to outline how the oil spill response will be managed. This would include an outline of the situation, objectives, priorities, command and control arrangements, reporting arrangements, and roles and responsibilities, communication arrangements, and stakeholders involved in the oil spill response operation, etc.

This *Concept of Operations* document should be endorsed by the State Committee/SDMG as required, and should be refined and updated and form the basis of stakeholder accountabilities. It should be effectively disseminated to all staff involved in oil spill response, at the earliest possible stage.

## 12 Conclusion

The *Pacific Adventurer* oil spill on 11 March 2009 in the Coral Sea off Moreton Island is the largest in recent history in Queensland. The circumstances surrounding the incident were complex and unique, and the incident gained significant media attention in the lead-up to the State election. Poor weather and difficulties in gaining early situational awareness frustrated response efforts in the first days. Political interest in the response was high and there was considerable pressure to see demonstrable clean-up action. The incident generated public debate and interest, and the response efforts were influenced by a number of peripheral issues.

The declaration of a disaster situation on 13 March 2009 was a 'first', where Queensland's disaster management arrangements combined with the national oil spill arrangements in a joint response to the oil spill. This challenged the traditional thinking as national oil spill arrangements are 'self contained' and based on a vertically integrated network of organisations. However, the scale and duration of *Pacific Adventurer* incident was beyond the capability of the 'combat agency', Maritime Safety Queensland, to manage alone. The activation of Queensland's disaster management arrangements was a prudent decision and provided access to whole-of-government resources to provide logistics support. In addition, activation of the State Disaster Management Group enabled agencies to address longer-term recovery issues.

As in any disaster incident, a number of elements of the response were not well coordinated, and this resulted in duplicated effort, under utilisation of resources and poor communication. Initially, the command and control arrangements were not well understood and decision-making responsibilities were unclear. In the absence of operational planning, the three Incident Control Centres at Bribie Island, Moreton Island and the Sunshine Coast became semi-autonomous and conducted their own planning and operations in the local areas. The State Disaster Coordination Group assumed overall coordination of response activities.

The command and control model that emerged was a hybrid between the National Plan and Queensland's disaster management arrangements. The immediate integration of these two separate systems presented initial connectivity issues involving many response agencies. The commitment from all agencies in achieving a whole-of-government outcome over a wide geographic area is commendable and was instrumental in overcoming the many challenges that emerged through the incident.

The oil spill response was successful and was concluded after 10 weeks of concerted effort by numerous agencies. The logistics challenges were significant in this incident due to the scale and duration of the incident, and the remoteness of operations – particularly on Moreton Island. The support provided through Queensland's disaster management arrangements was acknowledged, unequivocally, as being instrumental in the success of the operation.

Combining the national oil spill arrangements with Queensland's disaster management arrangements to deliver effective joint arrangements requires some refinements, based on

the lessons learned through the Pacific Adventurer incident. Effective joint operations will require clear command, control and coordination arrangements. The esoteric nature of oil spill response, with specific international agreements, legislation, oil spill techniques and equipment, and internationally accepted cost recovery arrangements, means that overall coordination of oil spill recovery arrangements must rest with the designated 'combat agency' – in this case, Maritime Safety Queensland.

Developing strong partnerships with local governments and between DERM and MSQ is also needed to ensure effective response which, in turn, will lead on to recovery arrangements.

These new joint arrangements must be refined and regularly exercised to promote familiarity with the new combined arrangements.

Whilst this incident could be classified as a 'low frequency, high impact' event, the potential exists for Queensland to experience significant oils spills in the future. A joint approach is essential where Queensland's disaster management arrangements provide the logistics support required to sustain large scale and complex oil spill operations.

## **TERMS OF REFERENCE**

### **Aim**

To undertake a snapshot review of how the disaster management system supported the response to the oiling of the Queensland coastline, discharged by the *Pacific Adventurer* into the Coral Sea off Brisbane on 11 March 2009 (the incident).

### **Objectives**

- Critically assess how well the State Disaster Management System integrated with the National Oil Spill Contingency Plan during this incident response;
- Identify what went well and what could potentially be improved specifically in relation to the disaster management support for this oil spill response;
- Establish whether there is a need for greater coordination between the logistic and technical supports for future oil spill incidents of similar magnitude and complexity; and
- Propose any actions that may be required to ensure optimal on-ground response to future potential oil spill incidents that require State Disaster Management System support.

### **Methodology**

The methodology for this review will be to capture relevant information through the following:

- A series of debrief sessions that have been held with all contributors to the oil spill response (where detailed minutes were taken);
- A debrief session with senior officers involved with the Queensland Oil Spill Contingency Plan State Committee (where this issue was the key topic discussed);
- One-on-one interviews with key government employees (e.g. from Emergency Management Queensland and from the Department of Transport and Main Roads (Maritime Safety Queensland and the Transport Safety Unit); the Australian Maritime Safety Authority (AMSA) Incident Analysis report; and
- A specific debrief report from Emergency Management Queensland summarising the key lessons identified from their perspective of this incident response (if received within the timeframes of this contract).

### **Constraints**

This is an internal Government report and it is not intended that external distribution will occur. This review is not to be a comprehensive, full-scale analysis of the event from the disaster management point of view, but rather a documentation of the key lessons learned in this context, with some synthesis and internal recommendations for Government as to what could be improved for the future.

Assistance with accessing people and information will be provided primarily by Kellie Williams of the Department of Transport and Main Roads (DTMR).

### **Timeframe and contractual arrangements**

It is anticipated that this review will be completed by the beginning of August (3 – 4 weeks from the date of commencement), with a total of approximately five days consultancy work spread over this period (the date of commencement can be taken from the date you receive these Terms of Reference). Any additional work above and beyond this would need to be negotiated with Jim Huggett of Maritime Safety Queensland at the earliest possible time.

As discussed in the meeting with Captain John Watkinson on Wednesday 8 July 2009, this review will be conducted as an extension of your initial contract with DTMR for provision of facilitation services during the *Pacific Adventurer* debrief sessions. Payment will be paid upon satisfactory completion of this work and provision of an appropriate invoice.

**Stakeholder Debriefs**

- Brisbane Incident Control Centre (BICC) Wednesday 13 May 2009
- Moreton Island Incident Control Centre (Moreton ICC) Wednesday 13 May 2009
- Scientific Advisory Panel Thursday 21 May 2009
- Community Stakeholders Thursday 21 May 2009
- Sunshine Coast Incident Control Centre (Sunshine ICC) Friday 22 May 2009
- State Committee/ State Incident Control Centre (SICC) Thursday 18 June 2009

**Individual Interviews**

- Trevor Leverington (Department of Public Works) Thursday 16 July 2009
- Bruce Grady (Emergency Management Queensland) Friday 17 July 2009
- Superintendent Scott Trappett (Queensland Police Service) Monday 20 July 2009
- Gary Butterfield (Department of Transport and Main Roads) Tuesday 21 July 2009
- Ed Hamill (Moreton Bay Regional Council) Monday 27 July 2009
- Michael Short (Department of Environment and Resource Management) Tuesday 28 July 2009
- Ken Smith (Department of the Premier and Cabinet) 28 July 2009
- Greg Scroope (Brisbane City Council) Wednesday 29 July 2009
- Jim Huggett (Maritime Safety Queensland) Thursday 30 July 2009
- Captain John Watkinson (Maritime Safety Queensland) Thursday 30 July 2009
- Captain Richard Johnson and Glen Hale (Maritime Safety Queensland) Friday 31 July 2009

ATTACHMENT THREE - OSRICS STRUCTURE

