THE RESPONSE TO THE

IRON BARON

OIL SPILL

REPORT OF THE REVIEW GROUP

January 1996

Report by the Review Group into the response by the National Plan to Combat Pollution of the Sea by Oil, to the oil spill which followed the grounding of the Iron Baron on Hebe Reef, northern Tasmania on 10 July 1995

Lagoon Bay Southern end looking south. (before & after clean-up)

Mid way along Lagoon Beach (before & after clean-up)

Photos were provided by Tasmanian Department of Environment and Land Management.
Corporate Services Division.

FOREWORD

Following the grounding, subsequent refloating and disposal of the BHP-chartered bulk carrier, *Iron Baron*, in July 1995, the Commonwealth Minister for Transport, the Hon. Laurie Brereton MHR, announced two investigations. The first was to investigate the circumstances surrounding the grounding of the vessel.

The second, the subject of this Report, was to review the response under the National Plan to the resulting oil pollution incident. The Group undertaking this review was required to report to Minister Brereton and to the Tasmanian Environment Minister, the Hon. John Cleary MP, by December 1995. The Terms of Reference for the Review appear at Appendix 2.

The Review Group attended key debriefing sessions of the main organisations involved with the response; conducted public hearings in both Port Sorell and George Town, Tasmania; received submissions from interested and affected individuals and organisations; carried out site and equipment inspections; and conducted personal interviews and discussions with many people involved with the response.

In addition to the offshore and onshore oil pollution clean-up, this incident also involved a very significant wildlife collection, treatment and rehabilitation program. The Review Group identified the thirty six issues discussed in this Report as warranting detailed consideration. Where appropriate, recommendations follow the discussion and findings relating to each issue.

The Review Group considers that its recommendations are of such importance as to be actioned as soon as possible.

Criticisms of organisations or individuals within this Report must be read in a constructive sense. As with any review that follows an emergency incident, it is essential to ensure that the lessons learned are used to improve arrangements and plans in readiness for any future incidents.

The Review Group greatly appreciates the response of the many individuals and organisations who provided submissions and reports, made personal presentations at public hearings, or made time available for informal interviews and discussions.

Tim Muir
Chair
Iron Baron Review Group

21 December 1995

Photos were provided by Tasmanian Department of Environment and Land Management. Corporate Services Division.

Pictures opposite taken at Tamar River

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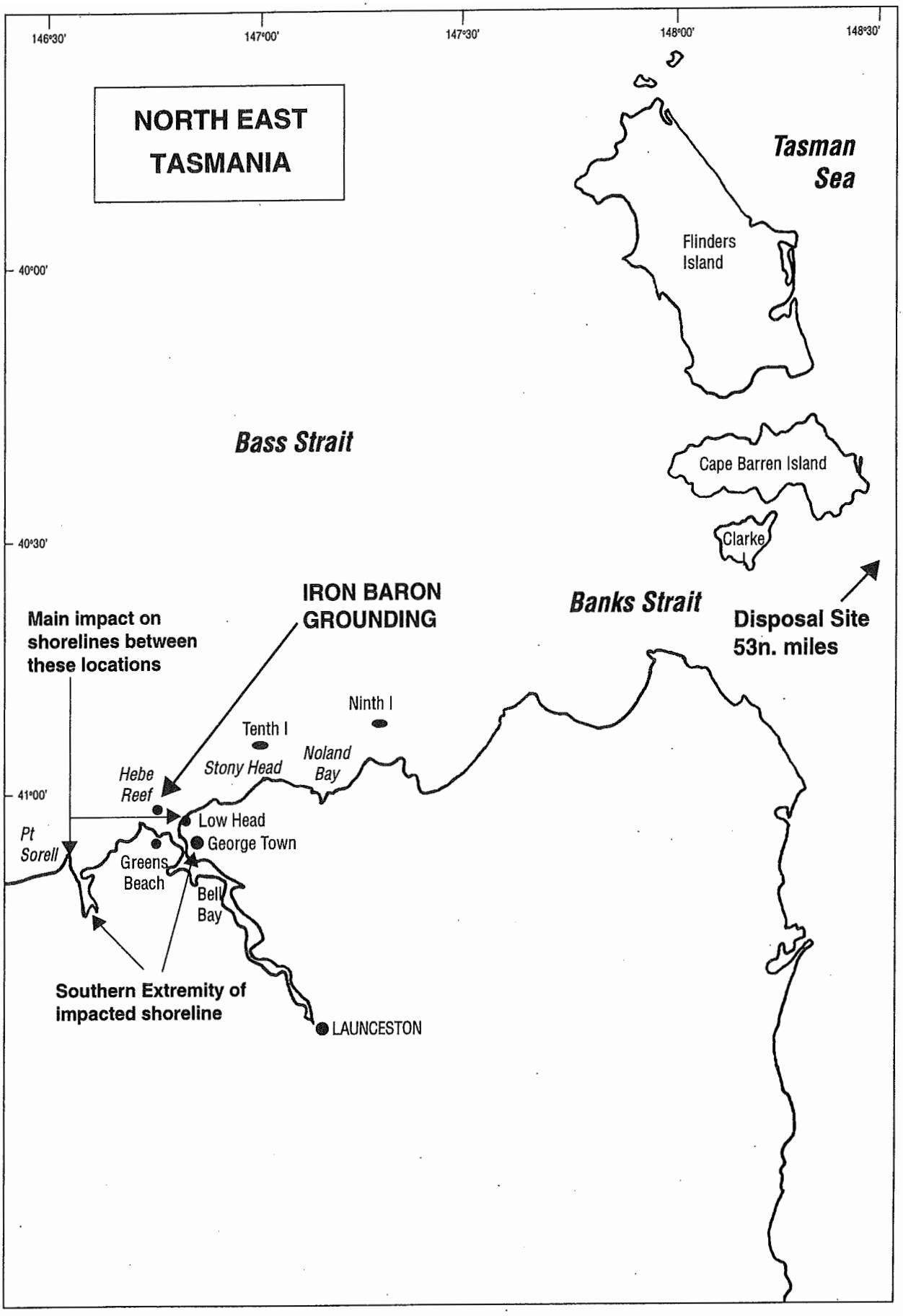
GLOSSARY

AMOSC	Australian Marine Oil Spill Centre *The oil industry's major response facility located in Geelong*
AMSA	Australian Maritime Safety Authority *Self-funded Commonwealth government safety agency responsible for combating pollution in the marine environment.*
ANCA	Australian Nature Conservation Agency *formerly the National Parks and Wildlife Service*
BHP	Broken Hill Proprietaries Transport
CES	Commonwealth Employment Service
CRA	Coastal Resource Atlas *detailed atlases identifying marine and foreshore ecosystems and biological resources*
DELM	Tasmanian Department of Environment and Land Management
DPIF	Tasmanian Department of Primary Industry and Fisheries
EMA	Emergency Management Australia *part of the Department of Defence, formerly 'Natural Disasters Organisation'*
EPA	Environment Protection Agency *part of the Commonwealth Department of the Environment, Sport and Territories*
ICS	Incident Control System
LOF95	Lloyds Open Form 1995 *a salvage contract between salvors and owners*
National Plan	National Plan to Combat Pollution of the Sea by Oil
NPAC	National Plan Advisory Committee *made up of all States/NT, shipping, oil and exploration industries, and relevant Commonwealth agencies*
OH&S	Occupational Health and Safety
OSC	On Scene Coordinator *person appointed under a Contingency Plan to manage an oil spill response*
OSSM	On Scene Spill Model *computer - based oil spill trajectory model*
P&I	Protection and Indemnity (Insurers)
PLA	Port of Launceston Authority
POLREP	Pollution Report
POWBONS	Tasmania Pollution of Waters by Oil and Noxious Substances Act 1987
P&WS	Tasmania Parks and Wildlife Service
SITREP	Situation Report
SMPC	State Marine Pollution Committee *committee responsible for coordinating the local administration and operation of National Plan*
SOPCO	State Oil Pollution Control Officer *officer appointed by the Tasmanian SMPC*
SSC	Scientific Support Coordinator
VIMS	Victorian Institute of Marine Sciences

LOCATION MAP



EXECUTIVE SUMMARY

The 37 500 dwt BHP-chartered bulk carrier *Iron Baron* grounded on Hebe Reef in the approaches to the Tamar River in northern Tasmania at 7.30 pm on Monday 10 July 1995. The vessel lost in the region of 325 tonnes of heavy fuel oil, much of which affected foreshores along the Tamar River estuary and some beaches to the east of Hebe Reef. Oil also affected shorelines to the west as far as Port Sorell and the Rubicon River estuary. In addition, this incident had a significant impact on wildlife, particularly on the species Eudyptula minor, or little (fairy) penguins.

The response to the oil spill was one of the largest ever mounted under Australia's National Plan to Combat Pollution of the Sea by Oil (National Plan), and the first major test since a comprehensive review of the National Plan was completed in 1993. The majority of recommendations of the 1993 review had been implemented prior to the *Iron Baron* spill.

One of the initiatives included in the revised National Plan was the requirement in any future major incident to review the spill response, to enable lessons to be learned and improvements to be made where necessary. This Report relates to the review of the response to the oil spill which followed the grounding of the *Iron Baron*. On the basis of the review, the Review Group has concluded that the *Iron Baron* oil spill response was generally well planned, managed and sustained. Equipment and personnel resources were used effectively, and planning of the response in an operational priority sense was well managed. The On Scene Coordinator, the Port of Launceston Harbour Master, Captain Charles Black, and his team deserve special recognition. There was dedicated support from the State Marine Pollution Committee and other Tasmanian Government departments and agencies; the Australian Maritime Safety Authority; the Australian Marine Oil Spill Centre; private companies and businesses; and a large workforce who volunteered their assistance.

Worth particular notice was the high level of integration and collaboration between Commonwealth, State and industry agencies and resources.

Every marine oil pollution incident is different. The details will be unique but there will be many facets of a particular response which are applicable to all. The ability to effectively respond requires a regular review and reassessment of Contingency Plans (including Coastal Resource Atlases); preparedness of equipment; the identification and appropriate training of personnel; and the sourcing of additional personnel, equipment and resources.

This incident confirmed the previously held view that most oil pollution response equipment has its limitations, especially in waters affected by rough weather, or in areas of high current or tidal streams.

The recommendations made in this Report are essentially operational in nature, and will not require major changes to the existing National Plan structure. The recommendations are, however, important and will need to be implemented as soon as possible. The impact of oil spills on wildlife is the focus of several of the recommendations of this Report. Responding to the needs of wildlife should be recognised as part of contingency planning (Recommendations 30, 31 and 32), equipment needs (Recommendations 15 and 16), Occupational Health and Safety issues (Recommendations 25, 26 and 27) and Training (Recommendations 28 and 29).

Specific legislation giving State governments powers to intervene in major ship-sourced pollution incidents is available in some States, but not in Tasmania. In terms of legislation, one of the major recommendations is for the Tasmanian Government and other States and the Northern Territory to review their future need to exercise powers of intervention (Recommendation 1).

Salvage was another important issue during the *Iron Baron* response. Better communication between the Salvage Master and the On Scene Coordinator would have been desirable (Recommendation 21). The incident also demonstrated a need for governments to have access to independent salvage advice (Recommendation 22).

Other recommendations include provision of information on the use of oil spill dispersants; improved consultation with and involvement of the local community; upgrading of the Coastal Resource

LIST OF RECOMMENDATIONS

PART A - AUTHORITY

Issue A1 Powers of Intervention, Legislation and Jurisdiction

Atlas; and improved administrative support capability.

1. To ensure an unambiguous identification of powers between States and Commonwealth, the Tasmanian Government and other States should review their future needs to exercise powers of intervention, either through State legislation or by seeking delegation from the Commonwealth Minister for Transport under Commonwealth legislation.
2. The Tasmanian Government should review pollution legislation with a view to removing the requirement for the Minister to approve an individual incident response plan and the requirement for the State Committee to appoint an On Scene Coordinator.
3. The Tasmanian Marine Boards should examine appropriate delegations/authorisations of navigation powers beyond port limits to allow immediate direction to be given in the event of an emergency.

PART B - PLANNING

Issue B1 Contingency Plans

4. The Tasmanian State Contingency Plan and regional/port plans should be reviewed and aligned with National Plan Contingency Plan Guidelines.

   Each port Contingency Plan should identify the roles and responsibilities of local government agencies in shoreline clean-up.
5. State Pollution Committees should examine the appropriateness of identifying the government department with statutory responsibility for wildlife as a 'primary agency' within the State's Contingency Plan.

Issue B2 Role of the State Committee - links between State Committee and Response Planning Committee

6. The State Marine Pollution Committee should consider appointing an Executive Officer to relieve the current State Oil Pollution Control Officer/Scientific Support Coordinator of administrative responsibility to the Committee, and review the availability of direct scientific support to the Committee. This could be done by the establishment of regional environmental experts for each port Contingency Plan.

Issue B3 Coastal Resource Atlas

7. The Tasmanian Coastal Resource Atlas should be redeveloped as a high priority, with input from relevant government and non-government organisations.

Issue B4 On Scene Spill Model

8. Given the present limited capability of the On Scene Spill Model, great emphasis should be placed on regularly ground-truthing predictions.
9. National Plan funding to continue development of an improved Oil Spill Trajectory Modelling system, incorporating up-to-date and detailed base-line data, should be made available.
10. National Plan information should explain the limitations of predictive modelling.

Issue B7 New Product Trial Management

11. The National Plan Advisory Committee, with the assistance and

LIST OF RECOMMENDATIONS

PART C - OPERATIONS

Issue C1 The Response Planning Committee

support of Scientific Support Coordinators, should develop an agreed protocol to handle the testing of new products.

12. State Committees should ensure that potential regional operations centres are identified in Contingency Plans.

13. The Australian Maritime Safety Authority's proposal to establish a National Response Team should be pursued as a matter of priority.

14. Relevant Tasmanian officials should review the current arrangement that identifies the position of Oil Spill Commander with the Commissioner of Police.

Issue C2 Equipment

15. The Tasmanian Marine Pollution Committee should review its equipment stockpile and identify shortfalls, taking into account :
    i) types of oil (that is, the predominance of heavy bunker fuel oils);
    ii) exposure to prevailing weather/water temperatures; and
    iii) the logistics of equipment transport.

16. Given the shortcomings of some existing equipment, more human and financial resources should be allocated to the research and development of response equipment, with particular emphasis on equipment that has been identified as needing modification.

Issue C6 Shore Line Clean-up

17. Appropriate wildlife rescue and rehabilitation kits should be included in any pool of response material and be made available, under the National Plan, at key locations around the country.

18. Port/regional Contingency Plans should identify senior local government engineers, who should receive appropriate training, to be shoreline clean-up team leaders.

Issue C7 Dispersant Use

19. The National Plan Advisory Committee should give high priority to the establishment of a dispersant/temperature/oil type matrix as a matter of urgency, using contract services if necessary. This matrix should be kept up-dated and incorporated in all State and Regional Plans.

Issue C8 Disposal of Waste

20. Regional and Port Contingency Plans should be reviewed and up-dated to reflect current preferred practices on the identification and implementation of disposal methods for oily waste and liquid oil.

Issue C9 Salvage - Operations

21. During an incident where casualties being salvaged have caused or are likely to cause oil pollution, the lead agency should appoint a very senior representative, who remains on board, with the objective of providing best available information on a continuing basis to the On Scene Coordinator and others. This will have the advantage that the Salvage Master will have to brief only one representative. The duties of this position should be fully considered and developed when the National Response Team is formed. This is a key position and consideration needs to be given to the training and experience of the personnel likely to be filling the role.

22. During an incident, independent salvage advice may need to be provided to the On Scene Coordinator, State Marine Pollution Committee and Australian Maritime Safety Authority (AMSA). AMSA/National Plan should explore the availability of resources to provide independent salvage advice, and make arrangements to

LIST OF RECOMMENDATIONS

PART D - PERSONNEL

Issue D1 Workforce

ensure that this independent opinion is available during an incident involving any severely damaged vessel.

23. States need to establish a strategy and systems including the identification of a pool of people to fulfil the functions of administrative support and put in place appropriate training and familiarisation.

Issue D2 Welfare/Health & Safety

24. As part of any Contingency Plans, proper provision should be made for:
    i) catering for and supporting the involvement of volunteers, including adequate briefings and provision and control of equipment, clothing and support facilities; and
    ii) assessment of suitable accommodation options, with the likely demand and shortfalls being addressed through options such as billeting.

25. Contingency Plans should make specific reference to Occupational Health & Safety policy and strategy, with a designated person responsible for those issues.

Issue D3 Training/Briefings

26. National Plan agencies in each State should prepare a series of relevant hand-out materials (on matters including, wildlife handling, shoreline clean-up and handling of dispersants) for all newcomers to the site, particularly volunteers and untrained/inexperienced personnel. This material would supplement on-the-job training.

    There should be an effort to educate across the spectrum of disciplines involved in an oil spill response, so that a better understanding of relative priorities, concerns and responses exists.

27. Tasmania should establish a regular program of training in the operation of oil spill response equipment for port, lands/wildlife, local government and emergency personnel.

PART E - ENVIRONMENT

Issue E1 Wildlife

28. A Senior Wildlife Manager with clearly identified roles and responsibilities should, from the outset, be included on the Response Planning Committee for all future oil spill incidents in Australia, and be identified as a key functional officer within Contingency Plans.

29. The Tasmanian Parks and Wildlife Service should prepare a Wildlife Response Plan.

30. A National Wildlife Response Plan should be pursued as a matter of priority and included as part of the National Plan to Combat Pollution of the Sea by Oil.

31. The Tasmanian Parks and Wildlife Service should widen its training in

LIST OF RECOMMENDATIONS

Issue E2 Aquaculture/ Fisheries

Incident Control System procedures to include all officers that may be required to respond to an oil spill incident.

32. The communication guidelines in Regional and State Plans should be amended to clearly identify :
    i) the appropriate public health/fisheries spokesperson; and
    ii) the need for effective dissemination of information about the impact of an oil spill on fisheries, and thus on public health.

Issue E3 Post Spill Assessment

33. Post spill impact assessment should continue along lines determined by the Impact Assessment Group of the State Marine Pollution Committee, and include the provision for amending the program in light of results obtained from the ongoing work. Results of this assessment program should be publicly available.

PART F - PUBLIC INTEREST

Issue F1 Media

34. Training in working with the media should be incorporated into any overall training program for personnel from the proposed National Response Team and key State agencies.

Issue F2 Community Issues

35. Consultation with and involvement of the local community should be specifically targeted throughout the entire incident and beyond. This should be an ongoing priority for the planning group.

Issue F3 Cultural and Heritage Issues

36. Future State and Regional Plans should have regard to cultural and heritage issues, including:
    i) procedures for liaison and consultation with Aboriginal communities;
    ii) procedures to identify Aboriginal and European cultural and heritage sites which might be affected by an oil spill;
    iii) identification of the impacts of any oil spill on traditional practices; and

INTRODUCTION

iv) any existing legislative requirements.

The *Iron Baron*, a 37.557 dwt BHP chartered bulk carrier (built in 1985) grounded on Hebe Reef at the approach to the Tamar River, northern Tasmania at 1930 hours (7.30pm) EST on Monday, 10 July, 1995. The vessel had departed from the NSW port of Port Kembla on Saturday, 8 July, 1995, with a 24,000 tonne cargo of manganese ore that had been loaded at Groote Island, bound for the BHP owned TEMCO facility at Bell Bay which is located some 12 km inside the Tamar River estuary and within the port of Launceston. Weather conditions prevailing at the time were north westerly winds of 20-25 knots with 2 metre seas.

Shortly after the grounding, it was confirmed bunker fuel oil had escaped later estimated at around 300 tonnes. The ships crew were safely evacuated, whilst National Plan response arrangements were initiated. Weather conditions deteriorated and with the prevailing tidal conditions, oil impacted shorelines in the vicinity of Low Head. There was significant impact on wildlife, particularly little penguins.

Whilst work continued to refloat the casualty clean-up of affected shorelines was underway. A large wildlife collection, treatment and rehabilitation program was established at the pilot station complex at Low Head, north of George Town.

The ship was refloated on Sunday, 16 July, 1995 and the vessel moved to an anchorage, some two miles offshore. The Port of Launceston Authority imposed a number of conditions to be met in relation to port safety and environmental protection, before the vessel could enter port.

There was further oil released from under the ship following the refloating, some of which was successfully collected at sea whilst some impacted Bakers Beach and the Rubicon River estuary in the vicinity of Port Sorell. Several Bass Strait near shore islands were impacted at some locations. These islands were also the scene for a concentrated wildlife collection effort.

Underwater inspections and onboard assessments confirmed major structural damage had occurred and with the ships condition reported to be deteriorating, and adverse weather predicted, BHP as ship owner, decided to dump the vessel. The Commonwealth Environment Protection Agency approved a disposal site some 53 miles east of Flinders Island. After towing to the dumping area, the *Iron Baron* sank around 1930 hours (7.30pm), Sunday, 30 July, 1995.

The response to this incident indicated that arrangements established under the parameters of the National Plan worked well. There was effective leadership and management of the response by the On-Scene Co-ordinator, Captain Charles Black and his team. He was supported by the State Marine Pollution Committee, primarily based in Hobart Tasmanian and interstate agencies, AMSA, industry, particularly BHP, AMOSC, private companies, local businesses and a large volunteer workforce.

(Note: A chronological summary of key events is included as Appendix 6.)

Iron Baron aground and leaking oil on Hebe Reef

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

In preparing this Report, the Review Group identified 36 issues which they considered warranted detailed consideration.

These issues are grouped into six categories, relating to:

- authority;
- planning;
- operations;
- personnel;
- environment; and
- public interest.

In the remainder of this Report, each issue is separately addressed. Where appropriate, recommendations follow the discussion and findings relating to each issue.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

PART A - AUTHORITY

Issue A1 Powers of Intervention, Legislation and Jurisdiction

Discussion

- 1. The roles and responsibilities of the many agencies involved in any shipping accident and in subsequent activities and responses are defined by agreed Administrative Arrangements supported by Commonwealth and State legislation.

  2. Powers of intervention relate to the right of a State or the Commonwealth to direct a ship to take action to minimise the risk of damage to the marine environment. This may include State or Commonwealth agencies taking charge of the vessel or providing directions to the ship owner by notice.

- 3. The Commonwealth exercises its powers of intervention through the *Protection of the Sea (Powers of Intervention) Act 1981*. These powers relate to the high seas as well as to Australian Territorial waters, except where a State has its own intervention provisions relating to its own waters. Most intervention powers are vested with a Minister for Transport or by Ministerial delegation.

  4. Under most marine-related legislation, if a State has complementary Acts in place, the Commonwealth has jurisdiction beyond three nautical miles seaward from the low water mark, with the state/territory having jurisdiction in the first three miles.

- 5. Tasmania has no legislation covering powers of intervention. It must rely on the cooperation of the Commonwealth Government to have appropriate action taken to minimise the risk of damage to the State's environment.

  6. The *Marine Act 1976* defines the roles and responsibilities of the Navigation and Survey Authority of Tasmania and of Marine Boards with regard to shipping and navigation safety in Tasmanian waters. It authorises the Harbour Master to direct shipping within the limits of a port. The Port of Launceston Authority (PLA), because it is also a Marine Board for the purposes of the Marine Act, has additional jurisdiction beyond port limits. This jurisdiction extends three nautical miles seaward from the low water mark between Cape Portland, south of Banks Strait and Badger Head east of Port Sorell.

- 7. The boundaries of the Port of Launceston lie south of a line joining Low Head, Hebe Reef Light and West Head. The *Iron Baron* grounded outside port limits (north of Hebe Reef light). For the Harbour Master to direct operational activities beyond the port limits but within the coastal jurisdiction of the Marine Board, it was necessary for the Port of Launceston Board to authorise the Harbour Master to act.

- 8. On 12 July, in order to clearly establish the situation regarding the vessel, the Australian Marine Safety Authority (AMSA), having first consulted with the National Plan State Committee, wrote to BHP advising them of the Commonwealth's powers of intervention. In its letter, AMSA sought information from BHP on the condition of the vessel, refloating arrangements, management of the vessel following refloating and intentions regarding cargo discharge, etc.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 9. Following refloating, the PLA was initially not prepared to allow the *Iron Baron* to enter port unless and until certain requirements and assurances were given by BHP.
- 10. On 20 July 1995, while the ship was at anchor beyond port limits undergoing hull inspection and removal of oil, AMSA issued a notice to BHP and to United Salvage under the *Commonwealth Protection of the Sea (Powers of Intervention) Act 1981*. This notice related to an earlier proposal (following refloating of the *Iron Baron*) to transit Commonwealth waters to determine if the ship was in a suitable condition to enter the Port of Launceston. The notice required a number of conditions, primarily relating to advice on the vessel's condition and an assessment of oil remaining on board, to be met before the ship would be permitted to leave the anchorage.
- 11. On 24 July 1995 it was reported that the ship had sustained extensive underwater damage. The possibility of transferring the cargo of manganese ore to another vessel had been ruled out by all parties because this would have placed the hull of the *Iron Baron* under too much stress. Later that day, the PLA formally advised BHP that, for structural and pollution reasons, the vessel could not enter the port of Launceston.
- 12. On 26 July 1995 Harbour Master Black, using his authorised powers to direct shipping within the Marine Board of Launceston's jurisdiction, formally advised BHP that the *Iron Baron* posed an unacceptable threat to the environment and to navigation. Under the provisions of the Marine Act, he ordered the ship to be removed from the Marine Board jurisdiction as soon as AMSA's requirements of the notice of 20 July 1995 ceased to apply. AMSA lifted the notice on the same day and directed that future movements of the *Iron Baron* be in accordance with the Navigation Act 1912.
- 13. Under the *Commonwealth Environment Protection (Sea Dumping) Act 1981*, and following a request by BHP, the Environment Protection Agency (EPA), on 26 July, issued a permit allowing the laden vessel to be dumped north east of Flinders Island.
- 14. Under the provisions of the *Tasmanian Pollution of Waters by Oil and Noxious Substances Act 1987* (POWBONS) the Minister for Environment is required to approve response arrangements as a 'Declared Plan' before they can be put into effect. The Act also requires the State Committee to appoint an On Scene Coordinator (OSC) for the spill. Both requirements were met.

Findings

- 15. The exercise of powers of intervention by the Commonwealth met the requirements of this incident. Tasmania could not have exercised such powers without Commonwealth cooperation. The legal extension of Commonwealth powers to within the limits of a State is not clear. Some States have their own powers of intervention under marine legislation. These are normally exercised by a Minister for Transport.
- 16. Response arrangements and identification of On Scene Coordinators need to be under appropriate Contingency Plans.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

The obtaining of Ministerial or State Committee approval could delay initial arrangements. In this particular incident the requirement for a Ministerially approved Declared Plan did not hamper the PLA from putting into place initial response arrangements.

- 17. The need for the Board of the PLA to authorise the Harbour Master to direct shipping outside port limits did not hamper the response.

Recommendation 1. **To ensure an unambiguous identification of powers between States and Commonwealth, the Tasmanian Government and other States should review their future needs to exercise powers of intervention, either through State legislation or by seeking delegation from the Commonwealth Minister for Transport under Commonwealth legislation.**

Recommendation 2. **The Tasmanian Government should review pollution legislation with a view to removing the requirement for the Minister to approve an individual incident response plan and the requirement for the State Committee to appoint an On Scene Coordinator.**

Recommendation 3. **The Tasmanian Marine Boards should examine appropriate delegations/authorisations of navigation powers beyond port limits to allow immediate direction to be given in the event of an emergency.**

Discussion

Issue A2 State Government

- 18. Involvement by the State Government in the *Iron Baron* incident was restricted to the Premier and the Minister for Environment and Land Management. The Minister for Environment and Land Management is responsible for the State Oil Pollution legislation and is the Minister responsible for the coordinating agency in the spill, the Department of Environment and Land Management. The Minister also has a responsibility to declare a plan for responding to an incident.
- 19. The Chairman of the State Marine Pollution Committee (SMPC) briefed the Minister on the incident on the evening that it occurred and on subsequent occasions (mainly when plans had to be declared for the incident response).

20. The Minister authorised the SMPC Chair to brief the Tasmanian Leader of the Opposition, Shadow Ministers and the Tasmanian Greens on the response.

21. The absence of written situation reports (SITREPS) from the planning team during the early days of the response created difficulties in terms of the information flow from the State Committee to both the Premier's Office and the Minister's Office. This was rectified after the first two days and a formalised information flow for the incident was developed between the Minister and the SMPC.

22. The Premier and the Minister for Environment and Land Management were fully apprised of the ramifications of the incident, as these became known.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 23. Both the Premier and the Minister travelled to the scene of the incident on the first day and were briefed by senior BHP officials during the first week of the incident.

  24. On several occasions, the Minister of Environment and Land Management attended the scene to obtain first-hand information and provide support to the response workers.

- 25. The separation achieved between the Response Planning Committee and the SMPC, in operational terms, was similarly achieved between the SMPC and the Minister responsible. The Minister was regularly briefed, but left management of the spill response in the hands of the SMPC and Response Planning Committee.

Findings

- 26. The separation of operational and political responsibility worked extremely well, reflecting the positive attitude of all parties in responding to the problem.

Issue A3 Commonwealth Government

Discussion

- 27. The National Plan to Combat Pollution of Sea by Oil (National Plan) is a unique Commonwealth/State arrangement that came into operation in October 1973. It represents a combined effort by the Commonwealth and State Governments, with assistance from the oil, salvage and shipping industries, to help provide a solution to the threat posed to the coastal environment by oil spills. At a Commonwealth level the National Plan is managed by the Australian Maritime Safety Authority (AMSA).

  28. Funding of the National Plan is through a levy on commercial shipping entering Australian ports. The levy is paid to AMSA.

  29. The Commonwealth/State National Plan Administrative Arrangements nominate 'lead agencies' for combating oil spills within harbours, in State waters and in Territorial waters and the high seas around Australia. In the case of the *Iron Baron* incident the 'lead agency' was the Port of Launceston Authority (PLA).

- 30. AMSA has the role of coordination, provision of technical advice, logistic and maintenance support, training, and equipment and materials procurement. In fulfilling the Commonwealth role, AMSA was mobilised within two hours of the grounding.

  31. In addition to their own employees, AMSA arranged for the support and assistance of employees of other National Plan agencies, including maritime agencies from Queensland, New South Wales, Victoria, South Australia, and Western Australia.

- 32. Approval for the dumping of the *Iron Baron* off the continental shelf north east of Flinders Island was provided by the Commonwealth EPA, following consultation with relevant Commonwealth and State agencies about the site.

- 33. Commonwealth Minister Laurie Brereton MP was kept fully briefed by AMSA and visited the incident site on 12 July 1995.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

34. Minister Brereton announced an inquiry under the *Navigation Act 1912* to determine the cause of the grounding. Minister Brereton and Tasmanian Environment Minister John Cleary also announced a review to assess the response, under the National Plan arrangements, to the oil spill resulting from the grounding.

- 35. A number of Tasmanian agencies praised the assistance provided by the Commonwealth. Both the On Scene Coordinator (OSC), Charles Black, and the State Marine Pollution Committee (SMPC) Chairman, John Ramsay, commented on the value of the support and cooperation they were given by AMSA and the National Plan.

36. A number of representations to the Review commented favourably on the effectiveness of the Commonwealth response. However, three submissions called for a Royal Commission to replace the Review.

Findings

- 37. The response mounted by the Commonwealth was appropriate and in accord with the National Plan administrative arrangements. There was good cooperation between the three tiers of government - Commonwealth, State and Local.
- 38. Commonwealth assistance provided by AMSA was supportive, efficient and professional. At all times AMSA recognised that the incident demanded a Tasmanian lead response with strong Commonwealth support.

Issue A4 Ship Owner/ Protection and Indemnity Club

Discussion

- 39. BHP owns and charters an extensive fleet of international and coastal tankers, bulk carriers, general cargo and container ships. *Iron Baron* was on demise (bareboat) charter to BHP. The ship was registered in Australia and was required to comply with a number of Commonwealth statutes covering, amongst other things, the safety and environmental requirements of the *Commonwealth Navigation Act 1912* and the *Protection of Sea (Prevention of Pollution from Ships) Act 1983*.
- 40. Protection and Indemnity (P&I) Clubs are third party insurers which provide public liability cover for a ship owner, including recovery of clean-up costs associated with a ship-sourced spill. Reimbursement of clean-up costs is on the basis that they have been reasonably incurred. The *Iron Baron* P&I Club insurer dispatched a UK representative, Dr Brian Dicks of the International Tanker Owners Pollution Federation Ltd London, to observe and advise the Club on the pollution response.
- 41. Settlement of insurance claims are a matter between BHP and their insurers.

Findings

- 42. The arrangements with the P&I Club worked well. Their representative was a valued member of the response team.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue A5 Salvage

Discussion

- 43. Lloyds Open Form 1995 (LOF95) requires salvors to use their best endeavours to salve the vessel, take it to a nominated place and, while performing the salvage, prevent or minimise damage to the environment.

  44. LOF95 defines damage to the environment as "substantial physical damage to human health or to marine life or resources in the coastal or inland waters or areas adjacent thereto, caused by pollution, contamination, fire, explosion or similar major incidents".

  45. The owner is required under the provisions of LOF95 to cooperate fully with the salvor to obtain entry to a nominated place.
- 46. United Salvage entered an LOF95 salvage agreement with BHP on 10 July 1995, with the nominated place being the Port of Launceston. From discussions held with BHP, United Salvage, PLA and the AMSA, the Review Group determined that the initial intent was for the vessel to enter the Port of Launceston.
- 47. An Owner can terminate LOF95 by giving reasonable notice in writing. At 1455 hours on 26 July 1995 the effective owners, BHP, terminated the LOF95 agreement with United Salvage. United Salvage maintain that they were not given reasonable notice.
- 48. During the currency of the LOF95, the Salvage Master from United Salvage had control of the vessel. On termination of the LOF95 that control reverted to the effective owner. However, in this instance, United Salvage were requested (and agreed) to maintain control of the vessel until the Tow Hire Agreement was signed on 27 July 1995. This agreement engaged United Salvage to tow and dump the vessel.
- 49. United Salvage experienced difficulties in determining appropriate reporting lines with BHP.
- 50. It was clear from submissions that the role of salvors is misunderstood in many quarters. United Salvage agree with this and, through meetings with State Pollution Committees and other bodies, are taking positive steps to foster a better understanding of the relationship between the salvage industry and statutory bodies.
- 51. A number of submissions questioned the conflict of interest that may have existed between the commercial obligations and interests of the salvor and its obligation to protect the environment.

  52. United Salvage have stated that a conflict of interest does not exist. They state that salvors are obligated to use their 'best endeavours' to prevent or minimise damage to the environment under Clause 1(a)(ii) of LOF95. Importantly, salvors are remunerated for doing so. Any failure to use such 'best endeavours' would open the way for a case to be put to an arbitrator against the interest of the salvor. Any negligence in this area of operation would have the potential to open the way to heavy commercial penalties on the salvor.
- 53. As the question of salvage award and performance will be subject to arbitration it is not considered appropriate to comment extensively or make recommendations here in relation to this issue.

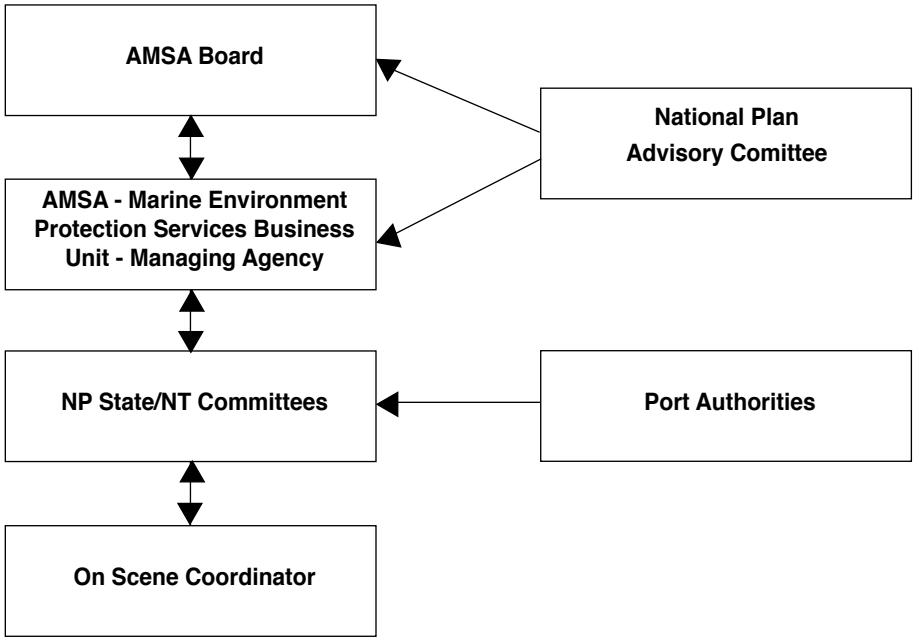
Findings

- 54. There was a number of authority/jurisdictional areas of uncertainty expressed by a number of respondents to the Review in relation to the salvage operations. These were probably caused by a lack of understanding of LOF95 agreements and of the Salvage Convention.
- 55. Because, during the incident, official priorities for the vessel changed from 'salvage and enter port' to 'tow and dump' there was some confusion in the minds of respondents.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

PART B - PLANNING

National Plan Structure



Issue B1 Contingency Plans

Discussion

- 56. National Plan arrangements require each State to have an oil spill Contingency Plan to deal with responses to oil spills within the State jurisdiction. Regional and port plans are subordinate to each State Plan and provide finer detail on, amongst other issues, how regional/local responses are to be run.

  57. The following plans were implemented in response to the *Iron Baron* oil spill:

  i) The National Plan to Combat Pollution of the Sea by Oil - Operations and Procedures Manual (1991);

  ii) The Tasmanian Supplement to the National Plan to Combat Pollution of the Sea by Oil (6/12/93) (State Plan);

  iii) Oil Spill Contingency Plan for the Port of Launceston (3/12/93);

  iv) Oil Spill Contingency Plan for the Port of Devonport (3/12/93); and

  v) BHP Emergency Management and Oil Spill Response Plans.

- 58. There is no Tasmanian wildlife or regional wildlife plan for oil pollution incidents.

- 59. The State Plan indicates that each coastal municipality has, or is producing, an emergency plan which details their responsibilities under an oil spill, and which identifies the role of Deputy On Scene Coordinator Foreshore as a response position fulfilled by a local government municipal engineer. The PLA Plan makes no mention of the role and responsibility of local government.

- 60. Guidelines and an agreed format for Contingency Plans have been developed under National Plan arrangements. The guidelines include the need to identify primary agencies. These are agencies with statutory responsibility for areas where an oil spill occurs - generally water and foreshore.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 61. The National Plan Operations and Procedures Manual was being re-written at the time of the *Iron Baron* spill, and is currently available in draft form as the National Contingency Plan.

Findings

- 62. Regional port plans appear to lack the local input that is necessary to ensure coverage of relevant regional issues.

  63. The present draft National Contingency Plan needs to be finalised.

- 64. Roles and responsibilities of municipal agencies should be included in port specific plans.
- 65. Regional port plans appear to lack local input that is necessary to ensure coverage of relevant regional issues
- 66. Wildlife treatment and rehabilitation will often play a major part in, and be a high cost element of, an oil spill response. However, the statutory 'ownership' of wildlife is not formally identified. Acknowledgment of this ownership within a Contingency Plan would place a clear onus on the statutory agency to recognise its specific obligations in preparation for and during an incident.

Recommendation 4: **The Tasmanian State Contingency Plan and regional/port plans should be reviewed and aligned with National Plan Contingency Plan Guidelines.**

Each port Contingency Plan should identify the roles and responsibilities of local government agencies in shoreline clean-up.

Recommendation 5: **State Pollution Committees should examine the appropriateness of identifying the government department with statutory responsibility for wildlife as a 'primary agency' within the State's Contingency Plan.**

Issue B2 Role of the State Committee - links between the State Committee and the Response Planning Committee

Discussion

- 67. The Chairman of the State Marine Pollution Committee (SMPC) was first notified of the *Iron Baron* incident by the State Oil Pollution Control Officer (SOPCO) at approximately 2100 on 10 July 1995. SMPC Chairman immediately advised the responsible Minister. The Minister was further briefed around 2230 on the significance of the incident and advised of the mobilisation of the response at approximately 0200 on 11 July 1995.
- 68. A meeting of the SMPC was convened at 0900 on 11 July 1995 and a comprehensive briefing was provided by the On Scene Coordinator (OSC) and others at 1100. As a result of this briefing and of advice from the OSC's Response Planning Committee, the SMPC adopted the Port of Launceston Contingency Plan as the operational plan for the incident and for a number of additional matters that needed to be addressed. That plan was presented to the State Minister for Environment and Land Management for approval.
- 69. In the first few days of the incident, communication between the SMPC and the Response Planning Committee was principally by telephone. The OSC had difficulty in providing written situation reports (SITREPS) to the SMPC because of the level of demands on him. This was subsequently rectified.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

70. The SMPC met as required throughout the incident (virtually on a daily basis) until the dumping of the ship on 30 July 1995. The SMPC met at DELM in Hobart. A comprehensive operations room was not established, although the conference room used was equipped with all the necessary maps and charts.

71. The SMPC remained almost exclusively in Hobart throughout the incident. This was because the operational responsibility for the response rested with the Response Planning Committee at Bell Bay, while the role of the SMPC was to monitor, coordinate support and advise Government in the light of briefings received from the Response Planning Committee.

72. At the end of the first week, the SMPC was concerned about the lack of information available regarding oil remaining on the vessel and travelled to the Port of Launceston in an endeavour to secure that information. The SMPC met at the George Town Council Chambers, determining that a venue separated from the operations area and the activities of the Response Planning Committee was more appropriate and, again, to ensure that full operational control rested, and was seen to rest, with the OSC and the Response Planning Committee. The visit of the SMPC to the PLA did not bring to light any better information and the SMPC returned to Hobart.

- 73. The SMPC co-opted to its membership, the Senior Wildlife Officer, who was Acting Director of Resources Wildlife and Heritage in the Parks and Wildlife Service, and the Director of Environmental Management, to provide additional expertise in the consideration of the issues.
- 74. The routine work of the SMPC is ordinarily supported by the SOPCO who is also a member of the SMPC. In this case the SOPCO was part of the Response Planning Committee at Bell Bay. He was also there in his capacity of SSC. This resulted in the SMPC not having regular administrative support available to it.

Findings

- 75. The clear separation of support and operational responsibilities that was established between the SMPC and the Response Planning Committee and maintained throughout the duration of the incident, contributed significantly to the success of operations. The good working relationship between these Committees was a credit to their leadership and those involved. A clear understanding of roles and responsibilities contributed positively towards the effectiveness of the response.
- 76. The multiple roles of the SOPCO caused administrative problems due to the high demands of this incident. This left the SMPC short of informed administrative support.

Recommendation 6: **The State Marine Pollution Committee should consider appointing an Executive Officer to relieve the current State Oil Pollution Control Officer/Scientific Support Coordinator of administrative responsibility to the Committee, and review the availability of direct scientific support to the Committee. This support could be achieved by the establishment of regional environmental experts for each port Contingency Plan.**

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue B3 Coastal Resource Atlas

Discussion

- 77. The Coastal Resource Atlas (CRA) is a source of information (hardcopy and/or computer digitised) about the coastal and near-shore environment. It is intended to contain data on coastal wildlife and marine resources, habitats, coastal geography and infrastructure details, marine navigation aids and navigation channels, key cultural/heritage areas or sites and jurisdictional boundaries for administering bodies.

  78. A properly compiled and detailed CRA is a valuable aid in the management of a response to an oil spill.

- 79. The Tasmanian CRA for the area which was available to the On Scene Coordinator (OSC) contained insufficient information to be of particular value. Comments received were that some information, such as significant cultural (Aboriginal) sites or heritage sites, had not been included as it was deemed inappropriate; maps were too broad-brush with inappropriate scales; and key wildlife habitat details were not listed.
- 80. Most States are reviewing their CRAs. Due to the high cost involved and the sheer scope and volume of the task, these reviews are usually on a programmed region-by-region basis. The Australian Maritime Safety Authority (AMSA) has provided funds to States and the Northern Territory to assist with these projects.

Findings

- 81. A properly compiled CRA would have been a valuable tool in assisting the Response Planning Committee in the management of the response.
- 82. The Tasmanian CRA as annexed to the PLA Contingency Plan was inadequate and did not provide a comprehensive and up-to-date overview of key sites and significant habitats nor of important 'natural' cyclic events, such as bird nesting seasons.
- 83. Prioritisation of shoreline clean-up was hampered due to a lack of appropriate information held by the CRA.
- 84. Ongoing National Plan funding into development of CRAs is appropriate and demonstrates the importance of the CRA as a tool for an effective response.

Recommendation 7: **The Tasmanian Coastal Resource Atlas should be redeveloped as a high priority, with input from relevant government and non-government organisations.**

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue B4 On Scene Spill Model

Discussion

- 85. The On Scene Spill Model (OSSM) is a computer trajectory modelling program used to predict the movement of an oil spill.
- 86. OSSM was activated by AMSA in Canberra early in the incident. However, AMSA has expressed concerns that the Victorian Institute of Marine Science (VIMS) also ran the model later in the incident. VIMS had been requested by the Scientific Support Coordinator (SSC) to run OSSM using real time data.
- 87. Concerns were expressed by wildlife personnel and some community groups as to why OSSM predictions were not passed on to wildlife coordinators, and why the movement of oil into certain areas was not predicted. AMSA is currently reviewing the national requirements for oil spill modelling.
- 88. AMSA is currently reviewing the national requirements for oil spill modelling.

Findings

- 89. OSSM should not be seen as an alternative to air surveillance. Predictions need to be continually ground-truthed by site checks and air surveillance.
- 90. Concerns regarding availability of OSSM predictions were partly addressed by including from week two, a wildlife officer on the Response Planning Committee.
- 91. The predictive limitations of OSSM were not generally understood by many members of the response team or the community.
- 92. Weather, particularly wind predictions mean that the reliability of OSSM predictions drop away after an eight hour time period. For some areas, results can be crude due to insufficient base-line data such as poor bathymetry and tidal physics details. It is more helpful for an experienced OSSM operator to be on site where ground-truthing is easier and local knowledge, on such things as unusual localised wind conditions or water currents, is available . Using correct protocols, OSSM can be a useful aid to the On Scene Coordinator (OSC). Back modelling or hindcasting from confirmed sightings can also help identify the origins of oil.

Recommendation 8: **Given the present limited capability of the On Scene Spill Model, great emphasis should be placed on regularly ground-truthing predictions.**

Recommendation 9: **National Plan funding to continue development of an improved Oil Spill Trajectory Modelling system, incorporating up-to-date and detailed base-line data, should be made available.**

Recommendationa 10: **National Plan information should explain the limitations of predictive modelling.**

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue B5 Australian Marine Oil Spill Centre

Discussion

- 93. The Australian Marine Oil Spill Centre (AMOSC) was established at Geelong in 1991. The Centre is financed by eleven Australian Institute of Petroleum oil companies. It provides a 24-hour 'rapid response facility' for equipment and personnel around the Australian coastline, as well as an extensive training facility.
- 94. AMOSC was initially advised of the grounding by the Australian Maritime Safety Authority (AMSA), after some difficulties were experienced with the AMOSC call-out system. After contacting BHP, AMOSC received immediate advice from BHP to mobilise.
- 95. Four AMOSC staff and 26 personnel seconded from ESSO, Shell, Mobil, Ampol, Caltex and BHP worked in the response on behalf of AMOSC. They filled up to nine supervisory positions in the shore-line clean-up activity. The AMOSC Manager worked as Industry Adviser to the On Scene Coordinator (OSC).

  96. A number of positive comments were received during the Review regarding the value of having properly trained operators from AMOSC on hand to take charge of work groups or train other personnel.
- 97. Within 18 hours of receiving advice to mobilise, twenty-three tonnes of AMOSC equipment was mobilised, mainly by air, from Geelong to Bell Bay. The equipment consisted of booms, skimmers, recovered oil tanks, oiled fauna kit and communications equipment.

  98. Particular reference to the suitability and contribution made by the AMOSC oiled fauna kit was made by a number of people involved in wildlife rehabilitation efforts. Some vets, while acknowledging their good value, believed there is a need to review the contents of the kit.

  99. AMOSC has advised that they are modifying their replacement procedures to ensure the continued availability of the fauna kit.

  100. AMOSC recognises the need to have the fauna kit on the first load out.

Findings

- 101. Involvement of AMOSC made a positive contribution to the response. Delivery time for equipment met the AMOSC response target, with some equipment in the water by 1500 hours on Tuesday 11 July (approximately twenty hours after the grounding) and the remainder on site by 1700 hours that day.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue B6 Safe Havens

Discussion

- 102. A safe haven is a sheltered location (maybe a port) where a ship which has broken down or been damaged, can seek refuge to effect repairs or obtain assistance. Depending on the type of casualty involved, most ports have the potential to be safe havens. Whilst the PLA has powers to permit or prohibit entry of ships to a port within the jurisdiction of the PLA, the Chairman SMPC, under the provisions of the *Tasmania Pollution of Waters by Oil and Noxious Substances Act 1987*, has the authority to refuse entry on environmental grounds.
- 103. On deciding whether or not the *Iron Baron* would be allowed to enter the Port of Launceston to seek a safe haven, PLA considered primarily the risk of further pollution, and, secondarily, the risk that the ship would break up and create a navigational hazard, and possibly block the Port.

  104. Initially, a suitable indemnity protecting the interests of both the State and the PLA in the event that the *Iron Baron* was permitted to enter port, was drafted. This became a non-issue after the refloat of the ship and her condition assessed.

  105. On 24 July 1995, BHP was advised by PLA not to bring the ship into the port on the basis of her structural condition and the consequent pollution threat.
- 106. The SMPC considered an option for a safe haven location off the east (protected) coast of Flinders Island for the purposes of temporary repairs. However, this was rejected.
- 107. Queensland has guidelines for appraising requests for safe havens. These have been circulated to States through the National Plan Advisory Committee (NPAC) as a possible model to be used by State/NT governments.

Findings

- 108. The safe haven issue is an extremely important one, requiring a thorough understanding by all parties likely to influence or be affected by a decision about whether or not to provide refuge.

  109. In some circumstances, failure to provide a safe haven may ultimately result in far greater environmental damage than would the provision of shelter.
- 110. The most appropriate forum for the decision on whether or not a ship should be provided a safe haven is the responsible port or marine authority. Those organisations have the benefit of local knowledge and conditions. They are also staffed by personnel with a marine background who will have an understanding of the circumstances of the vessel and an ability to best assess any potential threat.
- 111. Consideration of a request for a safe haven is likely to be influenced by a number of external interests, particularly environmental and political ones. It is therefore essential that relevant government and environmental agencies are well briefed on the issues as part of contingency planning. Any decision-making process needs to include consultation with government environment agencies.
- 112. The Review Group supports the development of State/NT National Plan Guidelines for appraising requests for safe havens.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue B7 New Product Trial Management

Discussion

- 113. Oil spills can be replicated in controlled laboratory environments. Response products do not necessarily require testing in an incident. The effectiveness of techniques and approved products used in oil spill clean-up needs to be thoroughly tested and familiar to response agencies before being used in a response.

  114. It is common practice for new product developers to seek to utilise an oil spill incident to trial and promote their products.

- 115. During the incident, a number of individuals and organisations made direct approaches to have their products trialed. Some organisations which did not get satisfaction from the Response Planning Committee made higher level approaches and raised the matter with the media.

- 116. A number of products were tested in the area of secondary clean-up/shoreline polishing. The Scientific Support Coordinator (SSC) believed that product developers' claims were over optimistic. For example, a degreaser used on Ninth Island resulted in additional work to remove residuals.

  117. The SSC believes an agreed protocol should be established to handle these approaches for product trials.

Findings

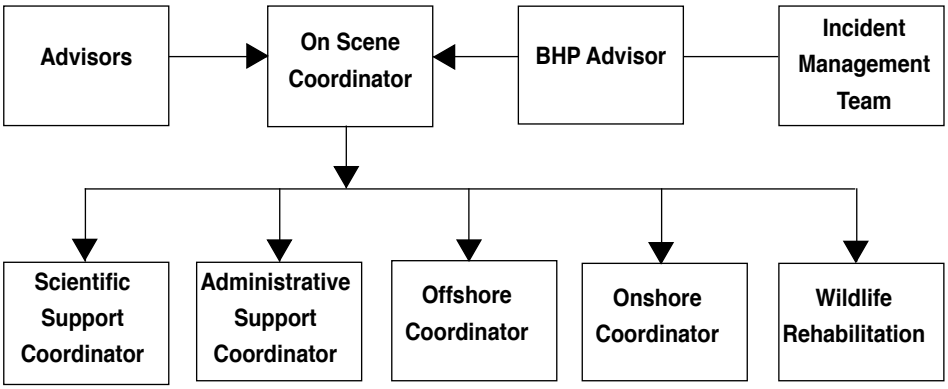
- 118. Approaches for product testing/trialing impinged unnecessarily on the Response Planning Committee.

Recommendation 11: **The National Plan Advisory Committee, with the assistance and support of Scientific Support Coordinators, should develop an agreed protocol to handle the testing of new products.**

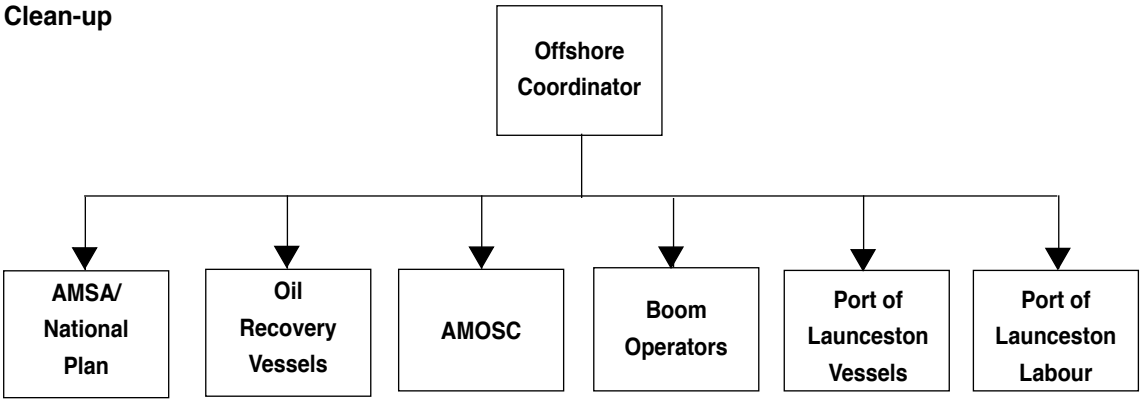
THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

PART C - OPERATIONS

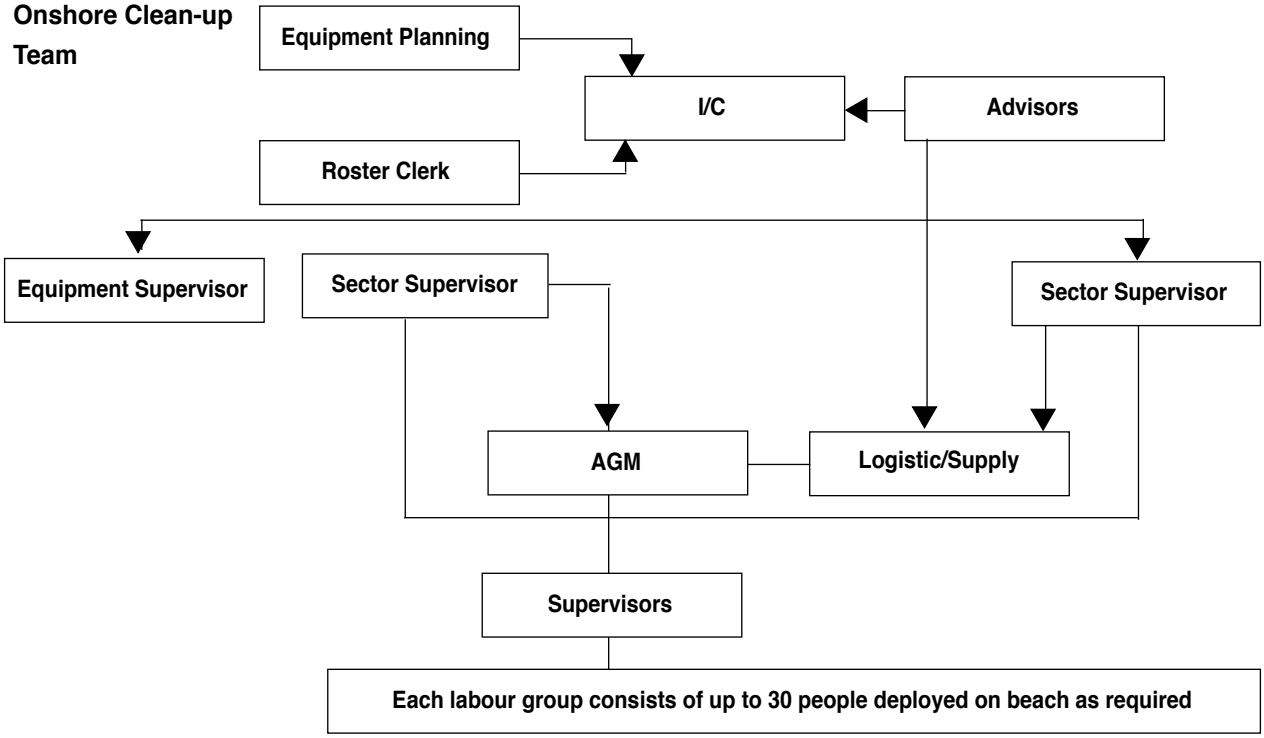
Oil Spill Response Team



Offshore Clean-up Team

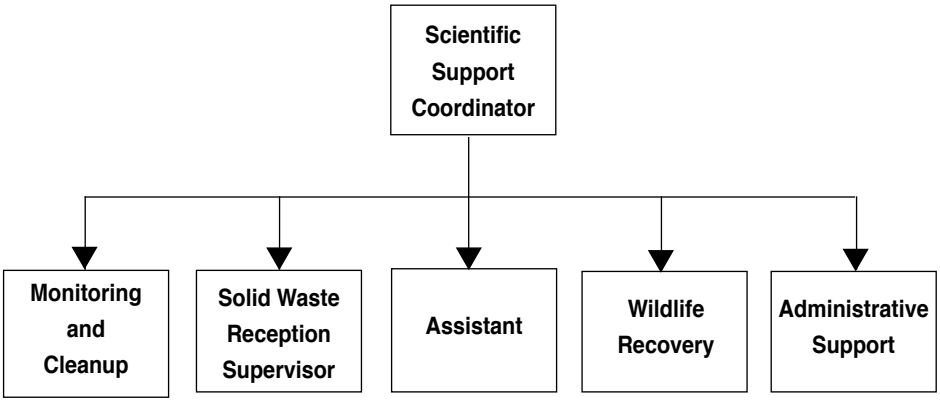


Onshore Clean-up Team

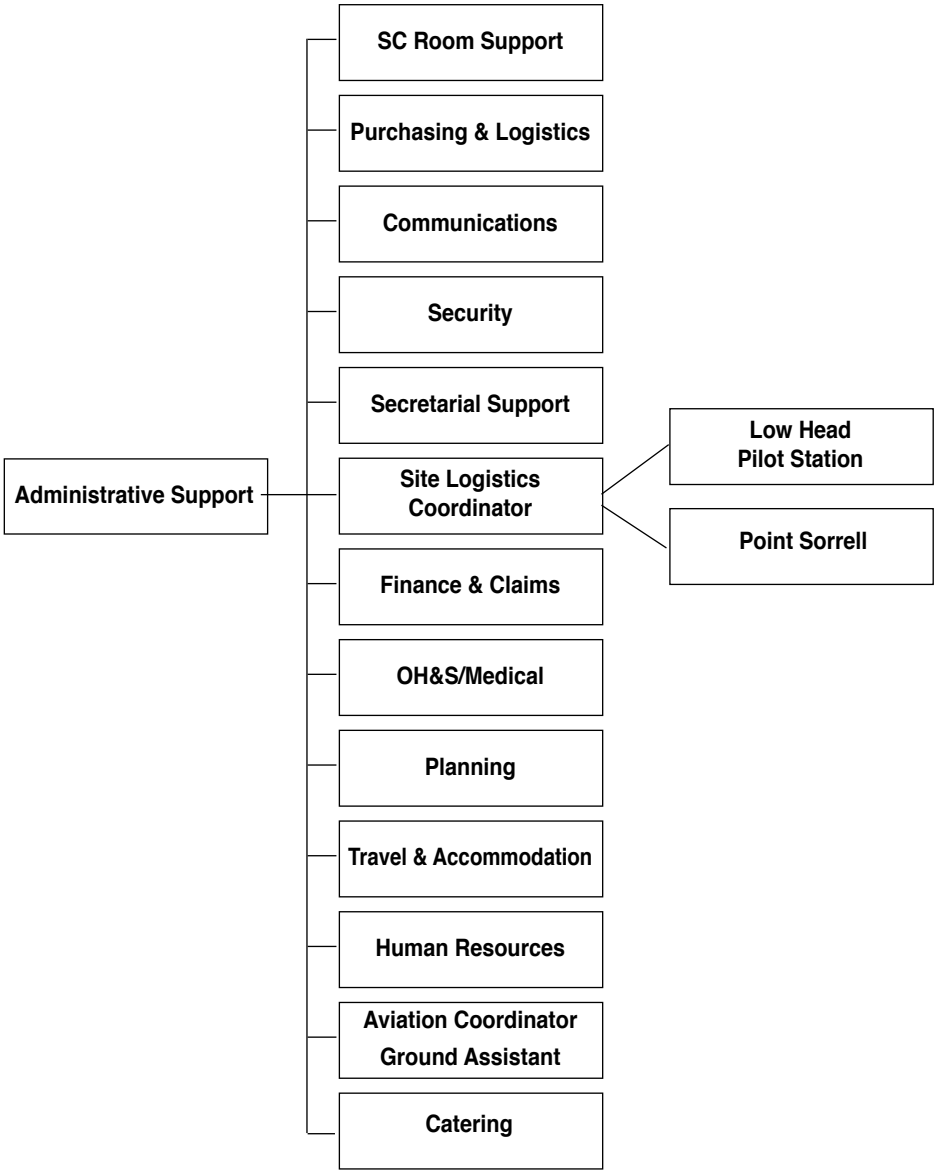


THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Scientific Support Group



Administrative Support Team



THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue C1 The Response Planning Committee

Discussion

- 119. In this incident, direction and planning was managed by a Response Planning Committee working under the overall control of the On Scene Coordinator (OSC).
- 120. The Response Planning Committee set up its operation centre in the board room of the Port of Launceston Authority (PLA) at Bell Bay, overlooking the Tamar River in the port area. It remained the operation centre from the day following the grounding to the completion of the majority of clean-up operations.

  121. The operations centre had ready access to other PLA rooms and resources. A mobile support 'village' was established in the grounds of the PLA. This relieved the demand on PLA resources.
- 122. The OSC for the majority of the response was Captain Charles Black, Harbour Master, Port of Launceston. Working under and reporting to the OSC were a number of leaders managing the following functions :

  - Offshore Clean-up;
  - Onshore Clean-up;
  - Scientific Support; and
  - Administrative Support.

  123. At the peak of the response over 500 personnel were in the field servicing all the functional areas.

  124. BHP officers with appropriate experience and training were functional leaders for administrative support and onshore clean-up during most of the response. They were, in effect, working for the OSC, but were seconded from and paid for by BHP. BHP also supported the response with personnel and resources in all functional areas.

  125. The OSC was directly advised by officers of: Australian Maritime Safety Authority (AMSA) (for the majority of the time Mr Ray Lipscombe); the Australian Marine Oil Spill Centre (AMOSC), (Mr Don Blackmore); the ship owner's P & I club representative (Dr Brian Dicks); United Salvage; and BHP. BHP was supported by a ship incident management team.

  126. During the first week, the Wildlife Rescue and Recovery Coordinator reported to the OSC through the Scientific Support Coordinator (SSC). A wildlife representative was subsequently appointed but, because of on-site demands at the Low Head rehabilitation centre, was largely not present at the operations centre other than for briefings/debriefings.
- 127. The Tasmanian SSC, Mr Richard Hammond, is also the State Oil Pollution Control Officer (SOPCO), a Statutory appointment within the State Marine Pollution Committee (SMPC). During the first week of the response the SSC was also responsible for wildlife issues.
- 128. Briefing and review sessions of the Response Planning Committee and key team leaders were held at the commencement and end of each day. Following the evening review, the next day's work was planned.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 129. In Tasmania there were insufficient numbers of personnel with appropriate oil spill response technical skills to manage and respond to a major incident such as this.

  130. To deal with the current situation, where each State has limited skilled resources to respond to a protracted oil spill incident, AMSA believes it appropriate for a composite State/Commonwealth/industry National Response Team to be established to assist in a major incident anywhere in Australia. AMSA has already taken action to establish such a group.

- 131. The Commissioner for Police, who is identified as the State Oil Spill Commander, was not required for the incident.

- 132. During this Review, concern was expressed that some aspects of the administrative support did not handle all the needs of additional staff brought in from interstate, particularly in regard to briefings and familiarisation procedures.

Findings

- 133. The composition of the Response Planning Committee was representative of the skills needed for the incident and was enhanced by the subsequent addition of a Senior Wildlife Adviser. Under the control of the OSC it was very effective and maintained good management over operations.

- 134. The availability of the PLA Building was useful for the set-up of the Response Planning Committee. However, in the longer term this proved a hindrance to the ongoing conduct of port business.

- 135. A major pollution incident affecting the coastline and wildlife requires large numbers of experienced personnel that are not readily available in any one State in Australia. For Australia to have the capacity to respond to a major pollution incident, there is a need to combine trained and experienced personnel from AMSA, each State and the oil industry to advise and provide the functional leadership and technical expertise needed to support an individual State's response.

- 136. Had the spill required a higher level of response, current arrangements in Tasmania would have placed the Commissioner of Police in control of response operations, while the management of the actual clean-up would have rested with the responsible lead agency. In a major incident it would be appear to be appropriate that any person fulfilling the role of State Spill Commander be a member of the SMPC and be trained and knowledgeable in all aspects of pollution response.

Recommendation 12: **State Committees should ensure that potential regional operations centres are identified in Contingency Plans.**

Recommendation 13: **The Australian Maritime Safety Authority's proposal to establish a National Response Team should be pursued as a matter of priority.**

Recommendation 14: **Relevant Tasmanian officials should review the current arrangement that identifies the position of Oil Spill Commander with the Commissioner of Police.**

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue C2 Equipment

Discussion

- 137. Only a limited quantity of port-based equipment was available in Tasmania, and some of that equipment lacked components when delivered on site. There were no locally-based heavy booms or Marco oil recovery type skimmers. This deficiency was soon overcome by the rapid supply of equipment resources from the National Plan and AMOSC. The oiled fauna kit supplied by AMOSC proved invaluable and received high praise.

  138. Bad weather affected deployment of equipment and demonstrated the limitations of oil spill equipment in adverse conditions.

- 139. Problems identified by the offshore coordinator in regard to equipment were:

  i) There were limitations with the AMOSC Roulunds Bay boom for single J configuration sweep due to its construction in 200 m continuous lengths. (It is considered 50m lengths which would enable greater flexibility with shape of deployment would be better for this application.)

  ii) The need to increase to 150mm the discharge hose for Desmi Systems to allow efficient pumping of high viscosity oil against high back pressures.

  iii) Temporary storage limitations particularly in the area of removal from the casualty. The Transpac containers fulfilled this to an extent however their capacity was limited.

  iv) The lack of any realistic offshore recovery capability in the National Plan stockpile, in particular a large Vessel Skimmer System."

- 140. The OSC identified a deficiency with the early series Marco oil recovery vessel's capacity to discharge certain types of recovered oil. That problem had previously been identified with this equipment.

  141. There were general comments at AMSA debriefings that concerns were held over the levels of maintenance of the equipment held in Tasmanian and other ports. However there were no reports of inoperable or poorly maintained equipment during this incident.

- 142. Mobile phones were used extensively during the operation. A number of problems with this mode of communications were identified.

  i) It was found that media were scanning the analogue mobile frequencies which inhibited their use in some cases. This was overcome to some extent by the introduction of digital phones.

  ii) The local area is renowned for the number of 'dead' spots where mobile phones are ineffective.

  143. Marine VHF communications were used extensively for offshore communications and communications with aircraft. PLA maintained two radio operators in its port control signal station, as there was a need to maintain normal port traffic as well as incident traffic. A number of boat operators commented on the difficulty in monitoring the radio and suggested the fitting and use of head sets.

  144. A substantial amount of communications equipment was provided by BHP, AMOSC and AMSA.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

145. Communications with some of the islands was reported as being unreliable. It appeared that in a number instances emergency communications from outlying islands was not considered or provided.

Findings

- 146. The *Iron Baron* casualty once again demonstrated that, in rough seas, existing technology is ineffective and the fate of oil is uncontrollable. In such conditions, an oil slick will invariably break up at sea or end up on shore.
- 147. The most likely source of major oil pollution from ships in Tasmanian ports is fuel oil. At room temperature this oil has the consistency of treacle, and, before use in ships' engines, it must be heated. At lower temperatures heavy fuel oil is semi-solid. There is a need for Tasmanian Contingency Plans and equipment inventories to reflect this.
- 148. The immediate availability of wildlife rescue and rehabilitation kits is essential.
- 149. Had previously identified deficiencies in transferring oil from the Marco oil recovery vessel been rectified, slightly better recovery rates of oil from the water would have been achieved. AMSA have stated that to rectify the problem would be expensive and not cost-effective.
- 150. Communications equipment was generally found to be satisfactory. There were no reports of serious operational difficulties reported due to faulty communications equipment. General access to mobile phones was of great assistance in the response.

  151. The reliance on mobile phones could have caused problems, and emergency response operations personnel need to be constantly aware of the shortcomings of the mobile phone network.
- 152. Contingency Plans need to recognise the requirements for on-site equipment management, including a centralised base under an appropriate manager/storeperson. Appropriate equipment records are also required.
- 153. The National Plan Equipment Working Group, when examining State equipment bids, needs to recognise the high cost associated with offshore equipment compared with its limited effectiveness in open water under most weather conditions.

Recommendation 15: **The Tasmanian Marine Pollution Committee should review its equipment stockpile and identify shortfalls, taking into account :**

i) types of oil (that is, the predominance of heavy bunker fuel oils); ii) exposure to prevailing weather/water temperatures; and iii) the logistics of equipment transport.

Recommendation 16: **Given the shortcomings of some existing equipment, more human and financial resources should be allocated to the research and development of response equipment, with particular emphasis on equipment that has been identified as needing modification.**

Recommendation 17: **Appropriate wildlife rescue and rehabilitation kits should be included in any pool of response material and be made available, under the National Plan, at key locations around the country.**

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue C3 Transportation of Personnel and Equipment

Discussion

- 154. Emergency Management Australia (EMA) provided the transport logistics role for much of the National Plan equipment. This was the result of a recently established contractual arrangement. The Australian Marine Oil Spill Centre (AMOSC) organised its own equipment transportation.
- 155. Some problems were experienced with EMA's new phone system, but these have now been rectified. This could have caused delays in equipment delivery.
- 156. There was a two hour delay in Australian Maritime Safety Authority (AMSA) being notified of the *Iron Baron* grounding. This may have delayed activation of equipment and personnel for pollution response.
- 157. Submissions to the Review stated concerns regarding deficiencies in materials stock control. The need was identified by some submissions for an on-site equipment store/logistics person to control equipment delivery, servicing, relocation and return.

Findings

- 158. A potentially hazardous incident arose when a mobile crane of marginal capacity was used to launch a Marco oil recovery vessel at Rubicon River Bridge. Despite the best intentions of local advice, submissions considered that the decision to launch by this method and at this location was inappropriate given the equipment used and the resultant stranding of the skimmer.
- 159. Transportation of both equipment and personnel was both timely and generally problem-free.
- 160. Delays in initial notification of the grounding to AMSA did not influence the effectiveness of the response.
- 161. There is a need to ensure that Contingency Plans properly address the issues of equipment control, and its delivery, servicing, relocation and return.
- 162. Adherence to existing procedures will ensure that AMSA is alerted of any incident as soon as possible and thereby able to facilitate both a prepared response by other organisations and deployment of equipment and personnel.

Issue C4 Use of Aircraft - On Scene

Discussion

- 163. Aircraft, in particular helicopters, are an essential spill response tool for surveillance, application of dispersants and transportation of personnel and equipment. During the *Iron Baron* incident, helicopters proved an invaluable resource, particularly for access to offshore islands. Three helicopters under the control of the On Scene Coordinator (OSC) were dedicated to tasks throughout the incident.

  164. There was occasional use of fixed wing aircraft for surveillance. However, these craft have their limitations for accurate observation purposes. Some problems were experienced with pilots inexperienced in oil pollution surveillance techniques.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

165. There was recognition that costs of aircraft hire are very high. An aviation coordinator, supported by an aircraft ground assistant, was appointed under the Administrative Support Unit of the Response Planning Committee.

- 166. Tensions arose because of the competing demands for access to aircraft for the purposes of, for example, observations/surveillance, transportation, salvage and wildlife rehabilitation. There appeared to be an underestimation of the requirements of the wildlife people particularly regarding transport.

167. These tensions may have been assuaged by allocation of a fourth helicopter but at an obvious extra cost.

Helicopters such as these proved an invaluable resource during the Iron Baron incident

168. The wildlife representative on the Response Planning Committee was not present at all times, due to time demands at the rehabilitation centre. However aircraft allocation was discussed each evening by the planning group, which included a representative from the Parks and Wildlife Service.

- 169. Some criticism was directed at the establishment of exclusion zones for aircraft around the ship and some islands. Some direct overflights by surveillance aircraft occurred over sensitive fauna areas.

170. Reference was made to problems with communications on board the *Iron Baron* as the result of aircraft overflying or hovering over the ship. This created problems when personnel were undertaking tasks requiring constant communication between supervisors and fellow personnel.

- 171. Some occupational health and safety (OH&S) issues were identified with aircraft usage where there were a few near-miss incidents in relation to transport of personnel by helicopter.

Findings

- 172. Aircraft, particularly helicopters, proved an invaluable tool for transportation of personnel and equipment to remote locations and to the stranded ship.
- 173. The creation of an exclusion zone around the ship and some islands was not done to prevent media access. It is a normal precautionary operating procedure in such circumstances and, in this incident, it was determined as necessary to reduce noise that could affect operations or disturb local wildlife.
- 174. The number of reported OH&S incidents regarding aircraft use indicates the need for adequate and compulsory briefings of aircraft passengers in order to minimise the risks.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue C5 Offshore Response

Discussion

- 175. The offshore response relates to water-based activities, including the deployment of booms, application of dispersants and recovery of oil by skimmers and absorbents. It requires personnel with operational seamanship and boat handling skills.
- 176. The initial call-out and response of the PLA personnel was effective and timely.

177. Weather conditions prevailing at Hebe Reef at the time of grounding precluded 'booming off' the *Iron Baron*. High tidal stream conditions and the reef itself would have made boom deployment dangerous and ineffective.

178. The offshore response was managed by the Deputy On Scene Coordinator (offshore), a functional leader on the Response Planning Committee.

- 179. The accessibility of equipment was good. Booms were of limited value in containing the oil under adverse weather and strong tidal conditions. Booms were, however, deployed for deflection purposes. Oil passes under booms when currents exceed 3/4 knot.

180. There were limited suitably powerful craft to support extensive deployment of booms. Only vessels from the PLA and the Australian Maritime College were used offshore, with the exception of two Marco oil recovery skimmers. These skimmers were on-site during the refloating and immediately deployed to recover oil. Of the 25 tonnes released, 7.5 tonnes was recovered.

181. Submissions questioned the adequacy of the response during and immediately following the refloating of the vessel under favourable weather conditions in particular with regard to non-booming of the vessel..

Findings

- 182. The offshore response planning for refloating included 'booming' of the *Iron Baron*. However, due to the strong tidal stream, proximity to the reef and lack of suitable craft to handle the boom (tugs and workboats were involved in the refloating operation), the decision was made not to boom the ship. Under the circumstances this was an appropriate decision.

A shore-barrier boom used to protect migratory bird nesting habitats

- 183. Booms were only of limited value offshore because of weather and tidal conditions. In the river they had extremely limited value due to the high tidal stream speeds. Investigation by the AMSAinto appropriate equipment and techniques using international best practice in dealing with oil spills particularly of heavy oil, needs to continue.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue C6 Shoreline Clean-up

Discussion

- 184. In most cases of near-shore ship-sourced spills, oil ends up stranded on shore. The majority of response effort will be directed towards shoreline clean-up.
- 185. A formal call out for foreshore clean-up was made eighteen hours after the grounding and work commenced soon after. Some activity commenced before formal guidelines were imposed. Because of the methods used, this, to a small degree, affected later operations
- 186. A representative of BHP was appointed by the On Scene Coordinator (OSC) to lead the foreshore clean-up function. However, there was a perception in the community that BHP was 'in charge' of the shoreline clean-up.
- 187. Local government provided most of the initial strike force, with additional equipment either being purchased or hired to meet needs. Equipment continued to be supplemented as those needs and the requirements of workers became apparent. The shoreline clean-up was a labour-intensive exercise. The equipment and protective clothing issued was largely effective.

Findings

- 188. There was an enthusiastic response to the shoreline clean-up call-out but, as could be expected, there were limitations early in the incident because of insufficient trained or experienced personnel. Despite the concern by some respondents as to the shortcomings of the response, it is considered that a comprehensive and thorough job was done. Only time and monitoring will determine the ultimate effectiveness of the operation, but those involved deserve high commendation.
- 189. Local government is the best initial resource for shoreline clean-up equipment, but in the case of a major spill, supplementary equipment and personnel would be required. A perception in the community that BHP was 'in charge' of the foreshore clean-up caused concern with some respondents. A more appropriate response would have been to have a local government representative on the Response Planning Committee leading the shoreline clean-up function.

Part of the extensive shoreline cleanup operation

- 190. Relevant Contingency Plans should contain broad priorities/plans for shoreline clean-up, with provision for daily priorities to be established at the time.

Recommendation 18: **Port/regional Contingency Plans should identify senior local government engineers, who should receive appropriate training, to be shoreline clean-up team leaders.**

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue C7 Dispersant Use

Discussion

- 191. The Port of Launceston Authority (PLA) Oil Spill Contingency Plan of December 1993 states, "The Director of Environmental Control (State Committee Chairman) will have the ultimate responsibility of deciding where, when, and under what circumstances dispersant may be used in any oil spill situation".
- 192. Dispersant use was approved and applied from PLA craft in the vicinity of Low Head from early morning on Tuesday 11 July 1995 until the tide changed at 1030 hours. At 1100 hours dispersant use was approved for " offshore - not in the estuary ". Other dispersant use offshore occurred on Saturday 15, when dispersants were trialed on a slick emanating from the ship. The trial proved the dispersant to be ineffective, so its use was not continued.
- 193. Dispersants were later approved for direct application to rocks for cleaning in the Low Head area and at Ninth Island. The Onshore Coordinator felt that earlier use of dispersants would have assisted the clean-up in the long term. The Tasmanian State Plan does not contain any specific information on the use of dispersants.
- 194. Only AMSA/National Plan approved dispersants were used. A total of 30 drums of dispersants were used from a stock on hand of 266 drums.
- 195. One respondent to the Review claimed widespread use of dispersants. Another was disappointed at the limited trials and use of dispersants. Others made reference to the lack of cooperation with salesmen who were looking for trials of 'cure all' products.
- 196. A number of OH&S issues relating to the use of dispersants in some locations were raised. These were mainly associated with dispersants being in drums that did not have the correct dispersant labelling.

Findings

- 197. With the exception of minor incidents, dispersants were used in accordance with approved procedures. Only approved dispersants were used.
- 198. The quantity of dispersants used for both oil type and terrain was not excessive and was entirely appropriate for the conditions prevailing. The decision not to trial 'new', non-approved products was correct.
- 199. The decision-making process for the use of dispersants would have been assisted by the provision of an appropriate dispersant-use matrix tuned for local conditions and included in the Contingency Plan. The identification of pre-designated areas where dispersant application was possible would also have been useful. States should pursue pre-approval planning for use of dispersants.

Recommendation 19: **The National Plan Advisory Committee should give high priority to the establishment of a dispersant/temperature/oil type matrix as a matter of urgency, using contract services if necessary. This matrix should be kept up-dated and incorporated in all State and Regional Plans.**

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue C8 Disposal of Waste

Discussion

- 200. Management of oil-contaminated waste and recovered oil is a response issue for any oil spill, and is primarily a State responsibility. The Port of Launceston Authority (PLA) Oil Spill Contingency Plan has regard to disposal sites and strategies, but does not reflect current preferred practices.

Some of the 3,500 tonnes of oil contaminated material

- 201. Waste disposal was the responsibility of the Scientific Support Group which included a Solid Waste Supervisor who provided technical and scientific advice on waste disposal methods and options following clean-up.
- 202. The strategy adopted aimed at minimising the use of land-fill operations. This was done by separating waste according to identified characteristics, with the intention of recycling some types of waste material. Circumstances, however, and the nature of the collected waste, dictated that land-fill disposal was the most appropriate option for the 3 500 tonnes of oil-contaminated material. This was eventually disposed of to land-fill in the George Town area.
- 203. Unusual waste, such as the liquid generated from bird cleaning operations, was transported to TEMCO fume treatment dams and will eventually be treated through the George Town Water Treatment Plant under a trade waste agreement.

Findings

- 204. Disposal of waste, on the advice of the Solid Waste Supervisor acting under the oversight of the Scientific Support Group, appears to have been adequate.
- 205. Given the existence of a wide network of experts in this field, it would be desirable that a protocol for management of oil-contaminated waste be developed at national level and incorporated into State plans.

Recommendation 20: **Regional and Port Contingency Plans should be reviewed and up-dated to reflect current preferred practices on the identification and implementation of disposal methods for oily waste and liquid oil.**

Issue C9 Salvage - Operations

Discussion

- 206. Salvage operations under LOF95 (see issue A5 - Salvage) commenced some five hours after the grounding and continued until the LOF95 was terminated at 1455 hours on 26 July 1995. From this time the operational focus changed from 'salvage' to preparation for 'towing and dumping'.
- 207. The salvage operation was in two phases:
  i) refloat the vessel from Hebe Reef; and
  ii) prepare the vessel to meet the necessary conditions for port entry.
- 208. The On Scene Coordinator (OSC) appointed an on scene casualty coordinator on board whose actions received favourable comment from a number of sources. A number of submissions said that the brief for the OSC's onboard representative was not clearly set out and he tended to confine his attention to anti-pollution measures.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 209. The *Iron Baron* was successfully refloated six days after the grounding and removed to a Port of Launceston Authority (PLA) designated anchorage, where it was to undergo extensive inspection and preparation for port entry. The opportunity for underwater inspections was hampered by the strong currents prevailing at the anchorage.
- 210. A number of respondents, including the State Marine Pollution Control (SMPC), OSC, OSC representative on the vessel, Australian Marine Safety Authority (AMSA), BHP and others, commented on the difficulty of obtaining accurate information from the salvors as to the condition of the vessel and, in particular, on the amount of oil remaining on board. Oil on the vessel created a number of difficulties, some (50 - 70 tonnes) was transferred to secure tanks, some (25 tonnes) was removed ashore. The quantity of oil remaining on board and the accuracy of the information being provided in this regard was of major concern to everyone involved.
- 211. United Salvage stated that:
  - i) A total of eleven written detailed situation reports (SITREPS) were provided by the Salvage Master to the effective owners (BHP) during the course of the operation, which is normal salvage practice. In addition, other SITREPS were provided covering the Refloating Plan and the estimate of oil remaining.
  - ii) Every effort was made to provide information as it became available. The estimation of the oil remaining in the breached tanks could only be made by divers who were limited in operating time. At the same time, owners, underwriters and United Salvage required information as to the extent of the damage to the hull, which also required the services of the divers
  - iii) Under the circumstances it was impossible to meet the somewhat unrealistic expectations of persons unfamiliar with the difficulties involved.
  - iv) Salvage is concerned with practicalities and does not perform to imposed timetables.
- 212. Following the refloating of the vessel, and whilst it was at anchor, the PLA determined that port entry was not an option and ultimately directed the owners to remove the vessel from their jurisdiction.
- 213. There was a conflict of opinion regarding the action required to minimise pollution of the environment, with the options being to transfer oil to secure tanks on board or to remove oil from the ship. United Salvage stated that the appropriate action is dependent upon the circumstances of each casualty. This is determined by the Salvage Master in consultation with attending surveyors at the time. In this case, the 'pumpability' (or lack thereof) of the thick heavy fuel oil was the determining factor.

Findings

- 214. United Salvage successfully refloated the vessel and removed her from Hebe Reef with great skill under difficult circumstances, and are to be complimented for their endeavour.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 215. The OSC's representative on board the casualty had a role, status and authority that was not clearly defined. However, under the circumstances he did a very good job and earned the respect of everyone on board the vessel.
- 216. Uncertainty about the volume of oil still on board complicated the planning for the wildlife response and caused questions to be asked by some members of the community.

Recommendation 21: **During an incident where casualties being salvaged have caused or are likely to cause oil pollution, the lead agency should appoint a very senior representative, who remains on board, with the objective of providing best available information on a continuing basis to the On Scene Coordinator and others. This will have the advantage that the Salvage Master will have to brief only one representative. The duties of this position should be fully considered and developed when the National Response Team is formed. This is a key position and consideration needs to be given to the training and experience of the personnel likely to be filling the role.**

Recommendation 22: **During an incident, independent salvage advice may need to be provided to the On Scene Coordinator, State Marine Pollution Committee and Australian Maritime Safety Authority (AMSA). AMSA/National Plan should explore the availability of resources to provide independent salvage advice, and make arrangements to ensure that this independent opinion is available during an incident involving any severely damaged vessel.**

Issue C10 Towage and Dumping

Discussion

- 217. After the decision had been made to dump the *Iron Baron* a contract was agreed between BHP and United Salvage to tow the vessel to the dumping area.
- 218. The vessel Blue Fin followed the tow of the casualty. The Blue Fin carried dispersant, spraying equipment and breaker boards, and was on standby to combat any further spills during the towing operation. Although no major spillage from the *Iron Baron* occurred, a light sheen was observed during the voyage. However, it was considered to be of such insignificance as not to warrant treatment.
- 219. The Cape Barren Island aboriginal community was concerned about the effects of dumping and the possible future pollution from residual oil still on board the ship.
- 220. Some public concern was expressed about the possibility that whales may be injured during the dumping. In addition, it was claimed that explosives were used to hasten the dumping process.

Findings

- 221. The towage and dumping operation was carried out with skill and precision and reflected the professionalism of United Salvage and BHP.
- 222. Whilst planning for the tow and sinking of the ship centred around mitigating any environmental issues that may have developed, more detailed information should have been released to minimise any disquiet the public may have had regarding the matter.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 223. Explosives were not used in the dumping. However, water pressure build-up in parts of the ship during the sinking process may have created the perception of explosions.
- 224. The minor sheen resulting from the towage operation is considered to have been inevitable under the circumstances and the decision to take no further action to disperse was appropriate.

Issue C11 BHP

Discussion

- 225. The shipowner (BHP) acted promptly by activating its Crisis Management Plan. BHP supported the Tasmanian State Marine Pollution Committee (SMPC) and On Scene Coordinator (OSC).
- 226. BHP provided significant financial, personnel and technical resources from local, interstate and overseas locations to assist the clean-up operations. It thereby brought to the task a whole range of administrative and logistical support. Local personnel were also available but did not have the same level of expertise. However, this was developed during the incident. BHP appointed an oil spill response expert to support the OSC and provided teams for cleaning up the affected areas around the Tamar River and adjoining coastline.
- 227. Although BHP stated and clearly accepted responsibility for cleaning up the oil pollution and associated problems, and also provided a significant number of the personnel and financial resources, control and coordination remained with the OSC, Captain Charles Black, and the SMPC.
- 228. BHP has put in place a long-term management plan should any further oil be brought to the surface during the coming months. BHP has given additional commitments to cooperate with the Tasmanian Department of Environment and Land Management (DELM), to fund an appropriate long-term sampling and assessment program of the environment following clean-up and restoration, and to fully support further clean-up efforts if required.

Findings

- 229. BHP acted effectively and professionally throughout the incident. It accepted responsibilities for the spill and made commitments to meeting clean-up costs.
- 230. The intense workload and associated stress that occurs with any oil spill and clean-up operations would have been greatly exacerbated had BHP's resources not been made available.
- 231. BHP's actions demonstrated that its crisis management team can act quickly and effectively and that they have the resources to respond to an emergency of this nature. BHP should be congratulated on its response and on the actions of the crisis response teams. The lessons that BHP learned from this incident should be made available to the National Plan and other industry organisations likely to be faced with a similar emergency.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

PART D - PERSONNEL

Issue D1 Workforce

Discussion

- 232. The response at its peak involved a team of over 500 people, drawn from Commonwealth, State, Local Government, industry (in particular BHP), local private companies and businesses, the oil industry and the general public.

  233. Due to limited Tasmanian personnel resources there was a dependence on external assistance. BHP, the salvors and Australian Maritime Safety Authority (AMSA) brought in interstate and overseas expertise.

- 234. Tasmanian agencies and staff experienced problems associated with their ongoing responsibilities. Port of Launceston Authority (PLA) staff were expected to ensure continuity of normal port operations during the incident. Normal routine duties of the small Wildlife Division within the Department of Environment and Land Management (DELM) mounted up while staff were fully occupied with this incident. PLA's boat crews did an excellent job in relation to removing personnel from the casualty. However, there were some criticisms regarding their availability in later stages. This was attributed to their normal work requirements and rosters of the port.

- 235. Salvors made use of the National Plan expertise and some equipment to assist the oil pollution aspects of the salvage operation. It was subsequently agreed this will not happen in future incidents.

- 236. Casual labour brought in to assist with shoreline clean-up was paid $18/hour. This flowed onto volunteers. Payment of Wildlife 'volunteers' created a greatly increased administrative workload, particularly with the large numbers of volunteers involved. It also adversely changed the culture of the response. Payment levels for volunteers and CES employees created inequities between workers and supervisors.

- 237. One of the major calls on specialist human resources was associated with the Administrative Support functions of the Response Planning Committee. These functions included acquisition of equipment and personnel, transport planning and logistics, welfare, health and safety, travel, accommodation and aircraft management. In this incident, these functions were substantially fulfilled by BHP expertise and staff.

Findings

- 238. Due to the limited numbers of suitably experienced people, continuing work on identifying a National Response Team is appropriate. Team members from the Commonwealth, States and Northern Territory and the oil industry, selected on the basis of proven skills and abilities, would be likely to fill key co-ordination roles. In regard to administrative support, the States and Territories need to establish an administrative and financial response strategy, including the identification of people within their own relevant organisations to fulfil the necessary administrative roles.

- 239. The level of payment to the supplementary workforce created inequities between workers and supervisors. It is preferable that any supplementary workforce be appropriately selected and paid at realistic rates. In this incident, some volunteers realised the inequity in the system and requested equal consideration.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 240. The incident reinforced the importance of the provision of administrative support to a successful response. In a similar incident, but without the availability of the organisational support of the likes of BHP, this function would fall directly to a government agency. States need to address this issue.

Recommendation 23: **States need to establish a strategy and systems including the identification of a pool of people to fulfil the functions of administrative support and put in place appropriate training and familiarisation.**

Issue D2 Welfare/Health & Safety

Discussion

- 241. The response involved a very large team of highly motivated people. Long hours were worked, often in difficult situations. The incident required a field response during daylight hours, followed by intensive debriefings and forward planning sessions during the evening. This meant that personnel frequently worked many days of 18+ hours under extremely stressful circumstances. This situation was aggravated by the extended nature (six weeks during the intensive phase) of the incident.
- 242. At times the weather conditions were extreme (both cold and windy) and some clean-up areas were extremely remote. Quite hazardous equipment and materials, ranging from helicopters to chemical dispersants, were used by large numbers of people, many of whom were inadequately trained. Some reports referred to people handling concentrated dispersants with no protective clothing.
- 243. Some field teams were located on remote islands with no radio communication or medical kit for up to three days, and with extremely limited or poorly coordinated food supplies. These teams generally included people with previous experience working in remote areas.
- 244. During the first week of the response, catering supplies and other amenities were often quite limited. The influx of government and industry personnel placed a severe strain on the accommodation available in the immediate area of George Town.
- 245. An occupational health and safety (OH&S) Officer was appointed to the planning team. During the response to the incident, few injuries were reported.

Findings

- 246. The general welfare and occupational health and safety of all response personnel, including volunteers, need to be considered throughout the duration of any response. Many people involved in the response were required to share accommodation, often in crowded situations.
- 247. On occasions during the response, some personnel were exposed to unnecessary risk as a result of inadequate training/briefing, limited planning, or poor implementation of plans. However, it was generally felt that, given the realities of an emergency type response operation spread over a number of sites, the OH&S issues were adequately handled. There was an awareness of the issue and the responsibilities it entailed.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 248. In similar incidents, where appropriate, stress counselling by qualified personnel should be readily available.

Recommendations 24: **As part of any Contingency Plans, proper provision should be made for:**

i) catering for and supporting the involvement of volunteers, including adequate briefings and provision and control of equipment, clothing and support facilities; and

ii) assessment of suitable accommodation options, with the likely demand and shortfalls being addressed through options such as billeting.

Recommendation 25. **Contingency Plans should make specific reference to Occupational Health & Safety policy and strategy, with a designated person responsible for those issues.**

Issue D3 Training/Briefings

Discussion

- 249. The core team members of the Response Team consisted of personnel who were well trained and operationally experienced in their particular jobs. However, the majority of support personnel were either trained but inexperienced, or were part of the considerable volunteer and supplementary workforce who were largely untrained and inexperienced.
- 250. There was a lack of training in a number of areas including Incident Control System (ICS) management, media presentations, use of equipment, shoreline clean-up techniques and use of chemicals. These deficiencies were met generally by 'on-the-job' training.
- 251. Several submissions from personnel involved in the response and from volunteers assisting referred to problems with work programs attributed to rapid staff turn-over (some personnel only staying for 3-4 days); minimal handover time for various replacement personnel; limited briefings and training for volunteers; and limited information material for volunteers.
- 252. A number of respondents suggested that there was a need for better on-site identification of personnel and the role they were fulfilling.

Findings

- 253. The overall effectiveness of the response was due primarily to the availability of a team of operationally experienced and trained personnel drawn from a variety of government and private sector agencies.
- 254. The initial phases (days 1-5) of the wildlife response were hampered by the lack of ICS training for wildlife personnel.
- 255. Change-over of personnel was a problem. Operational response plans should include provisions for adequate briefing of personnel at times of change-over, and that sequencing of personnel change be geared to maintaining an effective response. Each 7-10 day cycle should provide for an appropriate overlap which should not be less than 3 days in the early stages of an incident.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Recommendation **26. National Plan agencies in each State should prepare a series of relevant hand-out materials (on matters including, wildlife handling, shoreline clean-up and handling of dispersants which would be immediately available) for all newcomers to the site, particularly volunteers and untrained/inexperienced personnel. This material would supplement on-the-job training.**

There should be an effort to educate across the spectrum of disciplines involved in an oil spill response, so that a better understanding of relative priorities, concerns and responses exists.

Recommendation **27. Tasmania should establish a regular program of training in the operation of oil spill response equipment for port, lands/ wildlife, local government and emergency personnel.**

Issue D4 Personnel Communications

Discussion

- 256. The On Scene Coordinator (OSC) had put in place a process for regular briefings/debriefings. Although the Response Planning Committee provided the focus for this information flow, adequate communications across all facets of the response team did not occur at all times. Various comments were received about communication problems.
- 257. The stressful work situation aggravated any communication problems.
- 258. Tensions occurred when information disseminated seemed to contradict other observers' experiences. This may have been due to misunderstandings about terminology used. (The use of the term 'sheen' was an example where a technical term was used which was differently perceived by observers who were unfamiliar with oil pollution terminology or inexperienced with the surveillance of oil on water.) In some instances advice was sought and then not implemented, and in other instances parts of the response team did not understand the need for particular items required by other areas of the team. At times the operation of the response was hampered by poor communication between key members of the response team.
- 259. In the first few days a lack of situation/pollution reports (SITREPS/POLREPS) from the Response Planning Committee to the State Marine Pollution Committee (SMPC) caused problems in the State Committee's understanding of certain issues and in keeping them adequately briefed. This was soon corrected.

Findings

- 260. Viewed overall, communication was good and this was reflected in the success of the operation. This was due in no small measure to the willingness and professionalism of the people involved.
- 261. The stressful circumstances under which many key response personnel operated is likely to have contributed to difficulties in communications.
- 262. Implementation of recommendations and findings relating to training, debriefings and operations of the Response Planning Committee should alleviate most personnel communication problems.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

PART E - ENVIRONMENT

Issue E1 Wildlife

Discussion

- 263. The wildlife treatment and rehabilitation centre was established at the Low Head Pilot Station on 11 July 1995. Over time, to deal with the increasing numbers of affected wildlife, it developed into an extensive complex. The centre remained operational until 29 August 1995.

  264. Approximately 2 050 oiled penguins were treated at Low Head. They were washed, dried, and rehabilitated at the site. To help spread the load, 280 of the birds were translocated to Phillip Island in Victoria for rehabilitation there. The deaths of about 100 oiled penguins have been recorded. Only twenty of these died during rehabilitation at Low Head. The remainder were either dead on arrival at Low Head or were euthanased by the veterinary surgeons. In the early stages, to provide time for the Low Head and Ninth Island rookeries to be cleaned, birds were released either at Bicheno or at Fortescue Bay in the south east of Tasmania. The threat of further oil spills was removed when the ship was towed away to be dumped.

- 265. Comments were made on the problems and disquiet caused by the late notification of the incident to wildlife officers. Notwithstanding, local parks and wildlife officers were on the scene by 1000 hours in the morning after the grounding, and a wildlife cleaning station was in operation at Low Head by the afternoon after the grounding.

- 266. Beside the grounding of the ship and the news that an oil spill was occurring, the rescue, rehabilitation and protection of affected wildlife rated highly as a public issue. The emotion surrounding the care and protection of wildlife was probably the biggest single factor in the numbers of volunteers who came forward to offer assistance.

  267. The initial large numbers and differing expertise of wildlife volunteers resulted in some difficulties in the management of these groups.

- 268. There is no Tasmanian or National wildlife response plan. Some other States also do not have wildlife response plans.

  269. AMSA have advised that approaches have been made to the Australian Nature Conservation Agency (ANCA) to participate in the preparation of a National Wildlife Response Plan.

  270. There was a lack of detail in the Coastal Resource Atlas (CRA) with regard to wildlife habitats and resources.

- 271. Submissions noted the importance of immediate involvement of a wildlife officer on the Response Planning Committee. This did not occur until one week into the incident but the delay caused some problems, as did the relay of information from the Response Planning Committee to wildlife teams. Some submissions commented that it would have been better if the wildlife representative had maintained an unbroken representation on the Committee rather than dividing time with the rehabilitation centre. This would have ensured that changes in the dynamics of the total operation were quickly appreciated and acted upon.

The Iron Baron response identified the need for wildlife rescue and rehabilitation plans to be in place before a spill

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 272. The Incident Control System (ICS) employed by the Tasmanian National Parks and Wildlife Service (P&WS) for other disasters (such as fire and whale strandings) works well and was applied in this instance. However, in the initial stages of the response there were insufficient wildlife officers trained in ICS to cope with the magnitude of the event. It was some days before a fully operational ICS response was put in place. More trained staff are obviously needed if an effective response is to be immediate.
- 273. A number of submissions and comments stated that the resources of the P&WS need to be boosted in the wildlife area in the event of an oil spill, possibly through the secondment of staff.

  274. Many submissions reported very favourably on the successful wildlife rehabilitation program and on the early availability of interstate and overseas technical expertise.

Findings

- 275. The wildlife response was hampered by not having a senior wildlife officer working full-time with the Response Planning Committee.

  276. However, the early establishment and equipping of the wildlife treatment and recovery centre assisted considerably in the capacity to respond to what became a major wildlife incident.
- 277. There is a need to ensure full integration of wildlife rescue and rehabilitation plans into wider oil spill Contingency Plans, including identification of access to wildlife response equipment stockpiles.

  278. The lack of a wildlife response plan meant pertinent information was not available to the planning group. It also exacerbated the problems experienced by wildlife officers in setting up the initial rescue and treatment procedures. Wildlife response plans would benefit from the support of a Geographic Information System of environmental and wildlife distribution data. Such plans would also ensure that organisation, logistics, planning, volunteer and media management are in place from the start of a response.

  279. AMSA's proposal to develop a National Wildlife Response Plan is appropriate. It should form part of the National Plan to Combat Pollution of the Sea by Oil.
- 280. The wildlife branch of the P&WS does not have the personnel numbers to cope with even a medium size incident. A Wildlife Response Plan should to cater for appropriate back-up and training of reserve staff in ICS procedures.

Recommendations 28. **A Senior Wildlife Manager with clearly identified roles and responsibilities should, from the outset, be included on the Response Planning Committee for all future oil spill incidents in Australia, and be identified as a key functional position within Contingency Plans.**

Recommendations 29. **The Tasmanian National Parks and Wildlife Service should prepare a Wildlife Response Plan.**

Recommendations 30. **A National Wildlife Response Plan should be pursued as a matter of priority and included as part of the National Plan to Combat Pollution of the Sea by Oil.**

Recommendations 31. **The Tasmanian Parks and Wildlife Service should widen its training in Incident Control System procedures to include all officers that may be required to respond to an oil spill incident.**

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue E2 Aquaculture/ Fisheries

Discussion

- 281. Concern was expressed at the public hearing held at Port Sorell, 15 August 1995, about the unknown impact of an oil spill on the local marine life generally. It was pointed out to the Review Group that the inlet and the tidal reaches of the Rubicon River are a nursery for a number of fish species and molluscs, notably school shark, flounder, scallops and oysters. The same concerns were later raised at Low Head at an informal meeting with locals, but with specific reference to abalone and finfish which are popularly fished for in that area.
- 282. On 16 and 17 July 1995 there was some threat to a commercial oyster lease at Port Sorell. The Planning Group did take considerable account of this aquaculture operation in the Rubicon River Estuary and barrier material was placed around the oyster beds. No apparent contamination eventuated.
- 283. In a written submission received from the Marine Environment Branch of the Tasmanian Department of Primary Industry and Fisheries (DPIF) it was highlighted that both commercial and recreational fisheries are always likely to be seriously affected by an oil spill. These are major industries, particularly for Tasmania, and DPIF suggested a fisheries adviser be part of the on-scene planning team from the start of any future incident. This is probably not warranted given the presence of a Scientific Support Coordinator on that team.
- 284. DPIF further suggested that a protocol should be established to deal with the public health impact of an oil spill on commercial and recreational fisheries. This issue is complicated by such matters as allocation of responsibility and compensation in the event of closure of certain waters to fishing.

Findings

- 285. There is a natural concern by the public about the short and long-term impact of an oil spill on the commercial and recreational fisheries of the affected locality. This concern could be alleviated by pertinent information being made available early.
- 286. There is uncertainty as to responsibility for any required closure of waters to aquaculture and fishing. There needs to be clarification of the roles of DPIF and public health authorities in relation to this issue.
- 287. Present planning arrangements could be improved by the addition of protocols to deal with the dissemination of information about the impact of an oil spill on public health.
- 288. The Review Group notes that the proposed monitoring program (see issue E3 - Post Spill Assessment) will include aquaculture/fisheries issues.

Recommendation 32. **The communication guidelines in Regional and State Plans should be amended to clearly identify :**

i) the appropriate public health/fisheries spokesperson; and

ii) the need for effective dissemination of information about the impact of an oil spill on fisheries/aquaculture, and thus on public health.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Issue E3 Post Spill Assessment

Discussion

- 289. On 19 July 1995 the Impact Assessment Group of the Tasmanian State Marine Pollution Committee (SMPC), after preliminary assessment and monitoring work, commissioned a team of experts to prepare an environmental assessment program for the short, medium and long term for those areas affected by the spilled oil. Current State and Commonwealth Legislation does not provide for post-spill impact assessment programs.
- 290. By the end of August a draft program was produced for the *Iron Baron* oil spill. It had four principal objectives:

  i) To assess the fate of oil spilled from the *Iron Baron* in the marine environment;

  ii) To determine the persistence of oil in the marine environment;

  iii) To determine the impact of the spilled oil on the environment and

  iv) To determine when the affected areas have recovered to pre-spill levels.

  It is anticipated that the work will be completed by August 1997.
- 291. The Impact Assessment Group are assessing and refining the draft program while work progresses. BHP have undertaken to provide funding for the ongoing impact assessment program.

Findings

- 292. The SMPC and its Impact Assessment Group acted effectively and efficiently in setting up procedures and in determining a program for the short, medium and long term assessment of the impact of the spilled oil.
- 293. BHP have facilitated assessment processes and quickly undertaken to provide funding for an impact assessment program.
- 294. The cost of any post-spill impact assessment program be considered as part of the overall spill response operation and be recoverable from the polluter.

Recommendation 33. **Post spill impact assessment should continue along lines determined by the Impact Assessment Group of the State Marine Pollution Committee, and include the provision for amending the program in light of results obtained from the ongoing work. Results of this assessment program should be publicly available.**

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

PART F - PUBLIC INTEREST

Issue F1 Media

Discussion

- 295. Media matters were coordinated by Australian Maritime Safety Authority (AMSA), initially from Canberra and subsequently, in conjunction with BHP, from Bell Bay.
- 296. Media focus was initially on the ship casualty and oil pollution and then switched to the affected wildlife. The media focus on wildlife caused considerable disruption to the work at the rehabilitation centre operating at Low Head until the Department of Environment and Land Management (DELM) established a media protocol for the centre. Depending on the nature of a particular incident, some aspects attract greater media attention, particularly if they provide good photo opportunities or human interest aspects.
- 297. Some media perceived they were only briefed on the 'good news' aspects of the response. This perception was also held by some members of the community. In debriefings the On Scene Coordinator (OSC) and other key personnel were adamant that an accurate description of events was given to the media at all times.
- 298. Comments by the salvors relating to the amount of oil remaining on the ship and the proposal to tow the ship into Bass Strait for flushing out the oil contributed to a level of scepticism on the accuracy of information presented to the media.
- 299. Port of Launceston Authority (PLA) believes that the lack of media control by some agencies is indicated by the number of media spokesperson from key organisations who appeared on Tasmanian media outlets between 11 and 31 July 1995. Spokespersons numbered:

AMSA	-	5
BHP	-	8
Parks & Wildlife Service	-	13
PLA	-	3
United Salvage	-	1

Findings

- 300. Initially, media briefings relating to the impact on wildlife were poorly managed. This hampered the early operations at the Low Head rehabilitation centre.
- 301. For the general public and most special interest groups, national and local media coverage is the primary source of information about any incident. However, most media reports are unlikely to contain adequate detail of ongoing planning and response work during an incident. There will obviously be a variety of reports gathered by the media that cannot be 'controlled'. However, responding agencies need to adopt a responsible and coordinated approach to the media.
- 302. The initial media contact by AMSA and BHP was professional. However, from the time of refloating there was some scepticism within the community and the wildlife area as to the accuracy of the information disseminated.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 303. Statements made by some Parks and Wildlife personnel caused considerable disquiet and paved the way for scepticism and mistrust of the operation. This highlights the need for accurate reporting of the facts by suitably qualified people.
- 304. The Response Planning Committee requires a core media group, with relevant experienced personnel covering all aspects of the response. Media interest in response activities away from the operation centre also needs to be managed so as not to disrupt ongoing response work.

Recommendation 34. **Training in working with the media should be incorporated into any overall training program for personnel from the proposed National Response Team and key State agencies.**

Issue F2 Community Issues

Discussion

- 305. The response by the Tasmanian community in general, and by those in the immediate locality in particular, to oil clean-up and to wildlife rescue and rehabilitation was overwhelming.
- 306. This in itself caused problems. For example, it became difficult to manage the large numbers of volunteers, their deployment and their health and safety.
- 307. Many of those who made submissions to the Review Group raised these issues in one form or another. The underlying theme, however, was that, rather than taking on large numbers of people, the clean-up operators would have been better served by selective acceptance of offers of help.
- 308. The public meeting at Port Sorell expressed the general view that the local community should have been given preference in volunteer work. Such a policy may have facilitated a better selection process than did the broad acceptance of large numbers from the Commonwealth Employment Service (CES).
- 309. Problems with the volunteer workforce were exacerbated by the decision of BHP to pay the CES-sourced clean-up workforce, at the rate of $18 per hour. Submissions indicated that this was well above local award rates for comparable work and introduced payment inequities. The payment of $18 per hour was also extended to the wildlife 'volunteers'. It is understood that some volunteers did not accept payment, while others donated it towards ongoing maintenance of the Low Head penguin rookery and local wildlife causes.
- 310. With respect to news releases and briefings, it was evident from some community submissions that there was a general feeling that only 'public relations' good news was being released even though the community was supportive and needed to know what was happening. To a degree this view was supported by some personnel in the wildlife area, but tempered by the acceptance that the situation was changing rapidly and the knowledge that source information often conflicted within minutes as events progressed.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

Findings

- 311. Despite extensive communications aimed at informing the public, some community concerns still existed about the veracity of the information supplied. A Telephone Information Centre would assist and should be developed for each incident. There is a need for those responding to oil spill to identify and address community issues within Contingency Plans.
- 312. Control procedures and good supervision were not immediately in place for the very large numbers of volunteers from the general community.
- 313. The introduction of payment for 'volunteers' caused some ill-feeling and complicated the administration of volunteers. It also changed the nature of the 'ethic of volunteers' to 'working for reward'.
- 314. Not all volunteers and CES-sourced employees had an aptitude for the work expected of them. Selection procedures need to be implemented to ensure that volunteers (and employees) are chosen, if possible, on the basis of aptitude rather than raw enthusiasm.

Recommendation 35. **Consultation with and involvement of the local community should be specifically targeted throughout the entire incident and beyond. This should be an ongoing priority for the planning group.**

Issue F3 Cultural and Heritage Issues

Discussion

- 315. The cultural issues for the Low Head area were identified early in the incident. There appeared to be no heritage sites (for example, shipwreck sites) affected.
- 316. Discussions were held with local Aboriginal representatives regarding sacred sites in areas where shoreline clean-up was undertaken. When the sites were identified a cooperative approach was adopted, to ensure cleaning could continue without a deleterious impact on Aboriginal culture.
- 317. The Cape Barren Islanders Community Incorporated made a written submission to the Review Team. The submission highlighted the importance of clean water to the livelihood and culture of the Community. Great concerns were expressed about the oil spill, the impact of towing the vessel through Banks Strait and the possibility of pollution from the eventual dumping site.

  318. The Aboriginal residents of Cape Barren and Flinders Islands place significant reliance on the sea for their recreation/sustenance. Annual events, such as the mutton bird (short tailed shearwater) harvest, are an important part of the communities' incomes. The impact of a major oil spill can be gauged from this traditional cultural practice alone. Mutton birds nest on almost all the outlying islands and feed at sea. Babel Island, for example, contains one of the larger rookeries and the Aboriginal community estimates it contains approximately 2.5 million birds. The fears of the local communities are legitimate given the possibilities of an oil spill occurring during the time mutton birds are in the southern hemisphere.

THE ISSUES - DISCUSSION, FINDINGS AND RECOMMENDATIONS

- 319. Another factor highlighted by this incident is the importance to the Aboriginal community of the large number of cultural heritage sites around the coast of Tasmania. Current policy requires the National Parks and Wildlife Service, the Aboriginal community and the Tasmanian Aboriginal Land Council to be informed of any possible interference to a site.

Findings

- 320. Plans for the tow and dumping of the ship centred around mitigating environmental issues. While some of the matters that were addressed would have alleviated Aboriginal concerns, this was not effectively communicated to that community.
- 321. Consciousness of Aboriginal cultural heritage sites needs to be heightened, particularly for shore-based clean-up operations involving heavy machinery.
- 322. Future response planning should have regard to legislative requirements relating to cultural heritage sites.

Recommendation 36. **Future State and Regional Plans should have regard to cultural and heritage issues, including:**

i) procedures for liaison and consultation with Aboriginal communities;

ii) procedures to identify Aboriginal and European cultural and heritage sites which might be affected by an oil spill;

iii) identification of the impacts of any oil spill on traditional practices; and

iv) any existing legislative requirements.

APPENDIX 1

IRON BARON REVIEW GROUP MEMBERS

Tim Muir (Chair)
Navigation and Environmental Services Manager
Port of Melbourne Authority

David Baird
Area Manager
Ship and Personnel Safety Services
Australian Maritime Safety Authority

Max Laughlin
Retired
Former Director of the Tasmanian National Parks and Wildlife Services

Richard Purkiss
Executive Marine Consultant
Maritime Division
Western Australian Department of Transport

Diane Tarte
National Coordinator
The Marine and Coastal Community Network

Davydd Shaw
Administrative Support to Review Group

APPENDIX 2

Terms of Reference

National Plan to Combat Pollution of the Sea by Oil
Review of the NATIONAL PLAN Response to the Iron Baron Pollution Incident

Aim: To undertake a comprehensive assessment of the response to the Iron Baron incident which occurred following the grounding of the vessel on Hebe Reef, in the approaches to the Tamar River, northern Tasmania on Monday 10 July 1995.

Review Group Membership: The review group is to comprise persons with expertise in response to ship-sourced marine pollution incidents and related matters, but who had no role in the Iron Baron incident. Members of the review group are:

* Mr Tim Muir, Navigation and Environmental Services Manager, Port of Melbourne Authority;
* Mr Richard Purkiss, Executive Marine Consultant, Maritime Division, Western Australian Department of Transport;
* Mr David Baird, Area Manager, Ship and Personnel Safety Services, AMSA, Melbourne
* Ms Diane Tarte, National Coordinator, Marine and Coastal Community Network.
* Mr Max Laughlin (retired), former Tasmanian Director of the National Parks and Wildlife Service.

Terms of Reference: Review the circumstances of the incident from the oil pollution response perspective including the cause of the release of oil following the grounding and the vessel refloating and assess any deficiencies in the National Plan arrangements or in the actual response to the Iron Baron incident.

In this context:

1. Assess the response by the Operations Control Committee with particular reference to:
   (i) the call out procedures used and the effectiveness of the initial and subsequent response;
   (ii) the suitability and accessibility of National Plan equipment and response capability generally;
   (iii) availability and timeliness of response of technical support personnel;
   (iv) the decisions made in respect of calls for equipment and personnel in regard effectiveness and timeliness;
   (v) the adequacy and effectiveness of the wildlife rescue and rehabilitation response;
   (vi) the adequacy and effectiveness of plans made for responding to the incident and their implementation;
   (vii) the adequacy of the management of Occupational Health and Safety issues;
   (viii) the adequacy of the administrative support, environmental advice and support, and other related activities;
   (ix) the interaction with the media and other interested parties.
2. Assess the involvement of AMSA, the Tasmanian State Committee and other parties from the viewpoint of appropriateness, timeliness and adequacy. In this regard, particular attention should be given to the inter-relationship between the three tiers of government involved in the incident response and the role of the spill commander.
3. Appraise the related actions taken by BHP Transport Group and the Launceston Port Authority.
4. Within the context of this incident, review the National, Tasmanian State and local contingency plans and report on the adequacy of each. In this regard the working group should also address such issues as:
   (i) safe haven issues and implications;
   (ii) involvement of Environmental Agencies;
   (iii) the role of volunteers; and
   (iv) BHP, salvor and government interaction in relation to the response to the incident and the final decision to scuttle the vessel.
5. Provide recommendations for improvements and initiatives based on the lessons learned from the incident.

As far as is practicable, the review group or member(s) thereof are to attend the various debriefing sessions to be carried out by relevant agencies and bodies involved in the incident and consider the written reports of the various entities in the response (eg, AMSA, the Tasmanian State Committee, Australian Marine Oil Spill Centre (AMOSC), BHP etc).

Public comment regarding the response will also be taken at a hearing to be held in the George Town Council Chambers on 17 and 18 August in conjunction with the inquiry into the grounding to be conducted by the Commonwealth Department of Transport's Inspector of Marine Accidents (see Attachment A).

A draft written report, in a format suitable for presentation to the Commonwealth and Tasmanian Ministers, on the findings and recommendations of the Review Group in respect of Terms of Reference 1, 2 and 3 is to be prepared by 14 September and submitted to the 27/28 September 1995 meeting of the National Plan Advisory Committee. Comment from this meeting is to be provided to the review group by 30 September to enable the report to be finalised by 13 October 1995.

The review group is required to report on Terms of Reference 4 and 5 by the end of 1995.

AMSA, July 1995

Amended reporting times were subsequently agreed upon between the Review Group and AMSA.

APPENDIX 3
AGENCIES RESPONSIBLE FOR RECOMMENDED ACTIONS

State/NT governments	• Review their future needs to exercise powers of intervention, either through State legislation or by seeking delegation from the Commonwealth Minister for Transport under Commonwealth legislation. (Recommendation 1) • State Committees should ensure that potential regional operations centres are identified in Contingency Plans. (Recommendation 12) • Port/regional Contingency Plans should identify senior local government engineers, who should receive appropriate training, to be shoreline clean-up team leaders. (Recommendation 18) • Regional and Port Contingency Plans should be reviewed and up-dated to reflect current preferred practices on the identification and implementation of disposal methods for oily waste and liquid oil. (Recommendation 20) • Establish a suitable strategy and systems for coping with the personnel aspects of a major oil spill, including the identification of a pool of people to fulfil the functions of administrative support, training and familiarisation. (Recommendation 23) • As part of any Contingency Plans, proper provision should be made for: i) catering for and supporting the involvement of volunteers, including adequate briefings and provision and control of equipment, clothing and support facilities; and ii) assessment of suitable accommodation options, with the likely demand and shortfalls being addressed through options such as billeting. (Recommendation 24) • Contingency Plans should make specific reference to Occupational Health and Safety policy and strategy, with a designated person responsible for those issues. (Recommendation 25) • The communication guidelines in Regional and State Plans should be amended to clearly identify : i) the appropriate public health/fisheries spokesperson; and ii) the need for effective dissemination of information about the impact of an oil spill on fisheries, and thus on public health. (Recommendation 32) • Future State and Regional Plans should have regard to cultural and heritage issues, including: i) procedures for liaison and consultation with Aboriginal communities; ii) procedures to identify Aboriginal and European cultural and heritage sites which might be affected by an oil spill; iii) identification of the impacts of any oil spill on traditional practices; and iv) any existing legislative requirements. (Recommendation 36)
State Marine Pollution Committees	• Examine the appropriateness of identifying the government departments with statutory responsibility for wildlife as a 'primary agency' within the State's Contingency Plan. (Recommendation 5)

Tasmanian government	• Review pollution legislation with a view to removing the requirement for the Minister to approve an individual incident response plan and the requirement for the State Committee to appoint an On Scene Coordinator. (Recommendation 2) • The Tasmanian State Contingency Plan and regional/port plans should be reviewed and aligned with National Plan Contingency Plan Guidelines. The present draft National Contingency Plan should be finalised. Each port Contingency Plan should identify the roles and responsibilities of local government agencies in shoreline clean-up. (Recommendation 4) • The Tasmanian Coastal Resource Atlas should be redeveloped as a high priority, with input from relevant government and non-government organisations. (Recommendation 7) • Relevant Tasmanian officials should review the current arrangements that identifies the position of Oil Spill Commander with the Commissioner of Police. (Recommendation 14) • Tasmania should establish a regular program of training in the operation of oil spill response equipment for port, lands/wildlife, local government and emergency personnel. (Recommendation 27)
Tasmanian Marine Boards	• Examine appropriate delegations/authorisations of navigation powers beyond port limits to allow immediate direction to be given in the event of an emergency (Recommendation 3)
Tasmanian State Marine Pollution Committee	• Consider appointing an Executive Officer to relieve the current State Oil Pollution Control Officer/Scientific Support Coordinator of administrative responsibility to the Committee, and review the availability of direct scientific support to the Committee. This could be done by the establishment of regional environmental experts for each port Contingency Plan. (Recommendation 6) The Tasmanian Marine Pollution Committee should review its equipment stockpile and identify shortfalls, taking into account: i) types of oil (that is, the predominance of heavy bunker fuel oils); ii) exposure to prevailing weather/water temperatures; and iii) the logistics of equipment transport (Recommendation 15). • Post spill impact assesments should continue along lines determined by the Impact Assessment Group of the State Marine Pollution Committee, and include the provision for amending the program in light of results obtained from the ongoing work. Results of this assessment program should be publicly available (Recommendation 33).
Tasmanian Parks & Wildlife Service	• Prepare a Wildlife Response Plan (Recommendation 29) • Widen its training in Incident Control System procedures to include all officers that may be required to respond to an oil spill incident (Recommendation 31)

Australian Maritime Safety Authority (AMSA)/ National Plan Advisory Committee (NPAC)	• Given the present limited capability of the On Scene Spill Model, great emphasis should be placed on regularly ground-truthing predictions. (Recommendation 8) • National Plan funding to continue development of an improved Oil Spill Trajectory Modelling system, incorporating up-to-date and detailed base-line data, should be made available. (Recommendation 9) • National Plan information should explain the limitations of predictive modelling. (Recommendation 10) • The Australian Maritime Safety Authority's proposal to establish a National Response Team should be pursued as a matter of priority. (Recommendation 13) • Appropriate wildlife rescue and rehabilitation kits should be included in any pool of response material and be made available, under the National Plan, at key locations around the country. (Recommendation 17) • During an incident, independent salvage advice may need to be provided to the On Scene Coordinator, State Marine Pollution Committee and AMSA. AMSA/National Plan should explore the availability of resources to provide independent salvage advice, and make arrangements to ensure that this independent opinion is available during an incident involving any severely damaged vessel. (Recommendation 22) • National Plan agencies in each State should prepare a series of relevant hand-out materials (on matters including, wildlife handling, shoreline clean-up and handling of dispersants) for all newcomers to the site, particularly volunteers and untrained/inexperienced personnel. This material would supplement on-the-job training. There should be an effort to educate across the spectrum of disiplines involved in an oil spill response, so that a better understanding of relative priorities, concerns and responses exists (Recommendation 26) • A Senior Wildlife Manager with clearly identified roles and responsibilities should, from the outset, be included on the Response Planning Committee for all future oil spill incidents in Australia, and be identified as a key functional officer within Contingency Plans. (Recommendation 28) • A National Wildlife Response Plan should be pursued as a matter of priority and included as part of the National Plan to Combat Pollution of the Sea by Oil. (Recommendation 30) • Training in working with the media should be incorporated into any overall training program for personnel from the proposed National Response Team and key State agencies. (Recommendation 34) • Consultation with and involvement of the local community should be specifically targeted throughout the entire incident and beyond. This should be an ongoing priority for the planning group. (Recommendation 35)

National Plan Advisory Committee	• Develop an agreed protocol to handle the testing of new products with the assistance and support of the Scientific Support Coordinators, (Recommendation 11) • Give high priority to the establishment of a dispersant/temperature/oil type matrix as a matter of urgency, using contract services if necessary. This matrix should be kept up-dated and incorporated in all State and Regional Plans. (Recommendation 19) • During an incident where casualties being salvaged have caused or are likely to cause oil pollution, the lead agency should appoint a very senior representative, who remains on board, with the objective of providing best available information on a continuing basis to the On Scene Coordinator and others. This will have the advantage that the Salvage Master will have to brief only one representative. The duties of this position should be fully considered and developed when the National Response Team is formed. This is a key position and consideration needs to be given to the training and experience of the personnel likely to be filling the role. (Recommendation 21)

APPENDIX 4
SUBMISSIONS RECEIVED BY THE REVIEW GROUP

Written Submissions

Cape Barren Islanders Community
Mr Ralph Cooper
Department of Primary Industry and Fisheries
Environment Protection Authority
George Town Council
Mr David Lane - Port Sorell Landcare
Rubicon Coast and Landcare Inc
Save Our Coast Inc - Port Sorell
Tasmanian Conservation Trust
Tasmanian Greens (Mrs C Milne MHA)
United Salvage Pty Ltd
West Tamar Council
Mr David Wilson

Presentations at Public Hearings:

Port Sorell - 15 August 1995

Mr Peter Emmerton
Ms Victoria Emmerton
Mr David Lane
Mr Alistair Ross
Mr Greg Stokes
Mr Ian Strachan
Mr David Wilson
Ms Anna Wind

George Town - 17 & 18 August 1995

Mr Lawrence Archer
Dr Bob Brown
Mr John Bryan
Dr Sally Bryant
Mr Barry Clark
Mr Paul Clark
Mr Curt Clumpner
Ms Michelle Foale
Dr Simon Goldsworthy
Mrs Christine Milne MHA
Mr Frank Ver Beek
Mr Simon Wearne

Informal discussions were also conducted with field staff from the National Parks and Wildlife Service, and reports received from key organisations involved with the response.

APPENDIX 5
AGENCIES PROVIDING RESOURCES TO THE RESPONSE

Port of Launceston Authority (PLA)
Australian Maritime Safety Authority (AMSA)
BHP
TEMCO
COMALCO
United Salvage Pty Ltd
Tasmanian Department of Environment & Land Management (DELM)
Tasmanian State Marine Pollution Committee (SMPC)
Tasmanian National Parks & Wildlife Service (PW&S)
Australian Marine Oil Spills Centre (AMOSC)
State Emergency Service
Port of Devonport Authority
Queensland Department of Transport
Port of Brisbane Corporation
Sydney Ports Corporation
Newcastle Ports Corporation
Port Kembla Ports Corporation
Port of Melbourne Authority
Port of Hastings
South Australian Ports Corporation
Adelaide Ports
Western Australia Department of Transport
George Town Council
West Tamar Council
Victorian Institute of Marine Science
Taronga Park Zoo
Melbourne Zoo
Phillip Island Penguin Reserve
International Tanker Owners Pollution Federation Ltd London
Salvation Army
St Johns Ambulance
Queenland Department of Environment and Heritage
Great Barrier Reef Marine Park Authority
Supplementary workforce sourced from the CES
Volunteers from the general public

APPENDIX 6 CHRONOLOGY OF KEY EVENTS

Monday 10 July 1995

At 1930 hours EST (7.30pm) the bulk carrier, *Iron Baron*, ran aground on Hebe Reef, at the entrance to the Tamar River in northern Tasmania. The vessel, which was on charter to BHP, was carrying 24 000 tonnes of manganese ore from Groote Eylandt, via Port Kembla, NSW.

Nine minutes after grounding the Master notified the Port of Launceston Authority (PLA). Within an hour of the grounding, Harbourmaster Charles Black, who was later appointed On Scene Coordinator for the incident, put into action the National Plan to Combat Pollution of the Sea by Oil.

Throughout the incident, the PLA took primary responsibility for the response, with the State Marine Pollution Committee providing an advisory role. Additional advice and resources were supplied by The Australian Maritime Safety Authority (AMSA) the managing agency of the National Plan, the Australian Marine Oil Spill Centre (AMOSC), BHP, the Tasmanian Department of Environment and Land Management (DELM), the International Tanker Owners Pollution Federation (representing the vessel insurers), industry, private companies and volunteers.

The initial implementation of the National Plan involved preparing equipment held in other Tasmanian ports for transport to Low Head at the mouth of the Tamar River, arranging for personnel to proceed to Bell Bay and deploying booms to protect the Tamar River. Weather conditions prevented booms being placed around the *Iron Baron* itself.

At 2100 hours the PLA was advised that oil was leaking from the *Iron Baron* and notified the State Oil Pollution Control Officer, who informed the State Marine Pollution Committee. Ten minutes later the Minister for Environment and Land Management (Tasmania) received the first of many briefings on the situation. AMSA was advised by BHP of the situation at 2135 hours.

At 2145 hours BHP requested assistance of United Salvage, and salvage attempts commenced soon after (some of United Salvage personnel were in Lauceston at the time). Meanwhile AMSA had prepared an On Scene Spill Model prediction and provided it to the Port of Launceston Authority. The model provided estimates of how and where the oil slick may move.

By 2324 hours, in heavy seas, non-essential personnel were evacuated from the *Iron Baron.*

Tuesday 11 July 1995

At 0001 hours , AMOSC had been notified of the spill and requested to provide a range of oil spill response equipment and personnel to be sent to the incident.

At 0130 hours, the State Oil Pollution Control Officer declared a Tier Two oil spill. Four hours later BHP's Rapid Deployment Team arrived at Bell Bay, followed at 1030 hours by BHP's Oil Spill Response Group.

During the early hours, equipment and personnel needed for the response began to arrive from interstate.

As weather conditions deteriorated, heavy fuel oil began to beach in the vicinity of Low head and the Tamar River. Spraying of oil dispersants on to the slick was commenced however, due to the conditions and the type of oil was discontinued later that day.

APPENDIX 6 CHRONOLOGY OF KEY EVENTS

	There was significant impact on wildlife and a wildlife centre was established at Low Head Pilot Station, and treatment and rehabilitation of affected wildlife (notably little 'fairy' penguins) began.
	At 1120 hours the Minister for Environment and Land Management signed the declared plan to deal with the oil spill from the *Iron Baron*.
	By 1300 hours, clean-up of the foreshores by local council employees had commenced.
Saturday 12 July 1995	AMOSC's oiled fauna kit arrived at 0900 hours. Shipping containers were also brought in by BHP to house the affected and recovering birds. Over the period of the incident, around 2 050 penguins were treated at Low Head.
	Salvage crews continued to assess the situation and fate of the *Iron Baron.*
	Over the next three days more equipment and personnel from around Australia arrived in Launceston and the processes of deploying, retrieving, cleaning and re-deploying booms, monitoring oil movement and weather conditions, and oil recovery continued. (Overall, more than 500 people were involved in the response to the grounding).
Sunday 16 July 1995	At 1337 on 16 July 1995, the *Iron Baron* was refloated and moved to an anchorage some two miles offshore. In the process, further heavy fuel oil estimated to be 25 tonnes, escaped from the vessel.
	A detailed examination over a period of days found extensive underwater hull damage to the *Iron Baron*
Monday 24 July 1995	As a result, on 24 July, the PLA advised BHP that the vessel that for structural and potential pollution reasons the *Iron Baron* would not be allowed to enter the Port of Launceston
Wednesday 26 July 1995	In response to this advice, BHP, on 26 July, asked the Commonwealth Environment Protection Agency (EPA) for a permit to dispose of the *Iron Baron*, in accordance with the *Environment Protection (Sea Dumping) Act 1981*. A disposal site 53 nautical miles north east of Flinders Island was approved by the EPA.
	The salvage agreement between BHP and United Salvage was terminated and replaced with a contract to tow the *Iron Baron* to the disposal site and for the vessel to be sunk.
Thursday 27 July 1995	Towing of the vessel to the approved site commenced on 27 July.
Sunday 30 July 1995	The *Iron Baron* reached the disposal site at 1300 hours on 30 July and sank at 1945 hours.
	The clean-up of foreshores and rehabilitation of wildlife continued until early October 1995.