PILBARA PORTS

# PILBARA PORTS WEST – MARINE POLLUTION CONTINGENCY PLAN

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## DOCUMENT AMENDMENT TABLE

| Version | Prepared By | Date | Amendment |
|---|---|---|---|
| 5 | HM | 22/10/2015 | Header and footer updated, document amendment table added. SHEQ references removed and updated. |
| 6 | HM | 15/9/2016 | Revised and rewritten in Pilbara Ports format |
| 7 | HM | 12/02/2018 | Revised and restructured |
| 8 | DHM | 04/10/2019 | Review |
| 9 | DHM | 22/10/2021 | Review |
| 10 | WCR | 19/08/2025 | Review |

# 1. INTRODUCTION

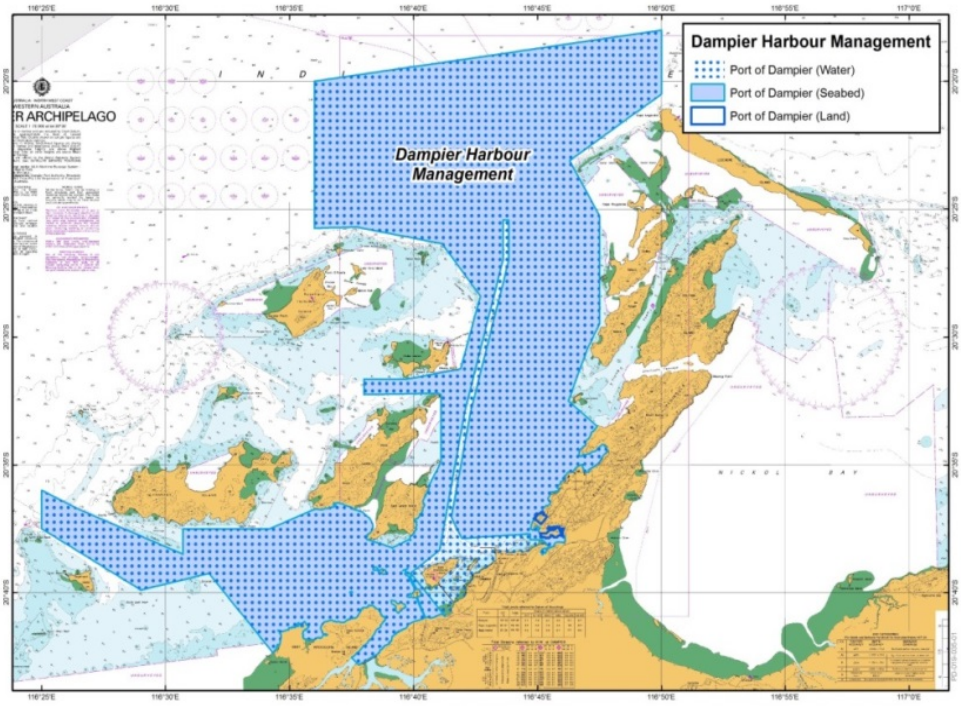
## 1.1 Aim and Objectives

- To enable Pilbara Ports to protect, or where this is not possible, minimise the impact on the marine environment from any marine pollution incident within the port and its associated waters, through the initiation of a rapid, effective and appropriate incident response.
- To provide an effective system for reporting, assessing and responding to an oil pollution incident or a potential incident.
- To ensure the organisation of resources of all agencies involved in the incident are in a high state of preparedness.
- To enlist the co-operation and support of all relevant agencies within the region.
- To protect the corporate, economic and environmental interests of Pilbara Ports.
- To ensure seamless integration between Pilbara Ports, Western Australia (WA) and National response efforts.
- To ensure that Pilbara Ports responds according to the priorities and procedures outlined within this document.

## 1.2 Scope of the Plan

The Marine Pollution Contingency Plan (MPCP) applies to oil or hazardous and noxious substances within the Port of Dampier Port Limits, as illustrated in figure 1.

**Port of Dampier Port Limits Figure 1**



### 1.3 Acronyms and Glossary of Terms

| ACRONYMS | |
|---|---|
| **ADIOS** | Automated Data Inquiry for Oil Spills |
| **AIIMS** | Australian Inter-service Incident Management System |
| **AMOSC** | Australian Marine Oil Spill Centre |
| **AMSA** | Australian Maritime Safety Authority |
| **AOC** | Advanced Operations Centre |
| **ATSB** | Australian Transport Safety Bureau |
| **Avgas** | Aviation Gasoline (piston fuel) |
| **BLB** | Bulk Liquids Berth |
| **CEO** | Chief Executive Officer |
| **CHEM PLAN** | National Marine Chemical Spill Contingency Plan |
| **CST** | Centistokes |
| **DBCA** | Department of Biodiversity, Conservation and Attractions |
| **DCW** | Dampier Cargo Wharf |
| **DFB** | Dampier Fuel Berth |
| **DFES** | Department of Fire and Emergency Services |
| **DMP** | Department of Mines and Petroleum |
| **DOT** | Department of Transport |
| **DPLH** | Department of Planning, Lands and Heritage |
| **DWER** | Department of Water and Environmental Regulation |
| **EAG** | Executive Advisory Group |
| **EPA** | Environmental Protection Authority |
| **EPCB** | Environment Protection and Biodiversity Conservation Act 1999 |
| **ERP** | Emergency Response Plan |
| **ESC** | Environment and Scientific Coordinator |

| | |
|---|---|
| **FLIR** | Forward Looking Infra-Red |
| **FSRP** | First Strike Response Plan |
| **G10** | Automotive diesel fuel |
| **GMMS** | General Manager Marine Safety – Department of Transport |
| **HAZMAT** | Hazardous material |
| **HEAT** | Hazmat Emergency Advisory Team |
| **HFO** | Heavy Fuel Oil |
| **HM** | Harbour Master |
| **HMA** | Hazard Management Agency |
| **IC** | Incident Controller |
| **ICC** | Incident Control Centre |
| **ICS** | Incident Control System |
| **IFO** | Intermediate Fuel Oil |
| **IMT** | Incident Management Team |
| **IPIECA** | International Petroleum Industry Environmental Conservation Association |
| **IRT** | Incident Response Team(s) |
| **ISO** | Incident Safety Officer |
| **ITOPF** | International Tanker Owners Pollution Federation Limited |
| **Jet A1** | Aviation turbine fuel |
| **JHA** | Job Hazard Analysis |
| **KBSB** | King Bay Supply Base |
| **LEMC** | Local Emergency Management Committee |
| **LNG** | Liquid Natural Gas |
| **LPG** | Liquid Petroleum Gas |
| **MARPOL** | International Convention for Prevention of Pollution from Ships |

| | |
|---|---|
| **MEOC** | Marine Emergency Operations Centre |
| **MEE** | Marine Environmental Emergency |
| **MEER** | Marine Environmental Emergency Response |
| **MGO** | Marine Grade Oil |
| **MLO** | Media Liaison Officer |
| **MOP** | Marine Oil Pollution |
| **MOU** | Memorandum of Understanding |
| **MOSES** | Marine Oil Spill Equipment Stock Pile |
| **MPCP** | Marine Oil Pollution Contingency Plan |
| **MTE** | Marine Transport Emergencies |
| **NATO F76** | Naval distillate |
| **NATIONAL PLAN** | National Plan to Combat Pollution of the Sea by Oil and other Noxious and Hazardous Substances |
| **NEBA** | Net Environmental Benefit Analysis |
| **NRT** | National Response Team |
| **NOAA** | National Oceanographic and Atmospheric Administration |
| **NOPSEMA** | National Offshore Petroleum Safety and Environmental Management Authority |
| **OH&S** | Occupational Health & Safety |
| **OIC** | Officer in Charge |
| **OPRC** | International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 |
| **OSCA** | Oil Spill Control Agent |
| **OSCP** | Oil Spill Contingency Plan |
| **OSIRT** | Oil Spill Incident Response Team |
| **OSRA** | Oil Spill Response Atlas |
| **OSRCU** | Oil Spill Response Coordination Unit (Transport) |

| | |
|---|---|
| **OSRV** | Oil Spill Response Vessel |
| **OSTM** | Oil Spill Trajectory Model |
| **OWRP** | Oiled Wild Life Response Plan |
| **P&I** | Protection and Indemnity |
| **PLAO**<br>**REGULATIONS** | Port Liaison Administrative Officer<br>Port Authorities Regulations 2001 |
| **POWBONS** | Pollution of Waters by Oil & other Noxious Substances Act 1987 |
| **POLREP** | Pollution Report |
| **RCC** | Rescue Coordination Centre |
| **RP** | Responsible Party |
| **SAR** | Search and Rescue |
| **SDS** | Safety Data Sheets |
| **SEMC** | State Emergency Management Committee |
| **SITREP** | Situation Report |
| **SIMP** | State Incident Management Plan |
| **SLAR** | Side Looking Aerial RADAR |
| **SMPC** | State Marine Pollution Controller |
| **SMS** | Safety Management System |
| **SRT** | State Response Team |
| **SWI** | Standard Work Instruction |
| **THE ACT** | Port Authorities Act 1999 |
| **TDSB** | Toll Dampier Supply Base |
| **ULP** | Unleaded Petroleum |
| **VTS** | Vessel Traffic Service |
| **VTSC** | Vessel Traffic Service Centre |
| **VTSO** | Vessel Traffic Services Operator |

| | |
|---|---|
| **WA** | Western Australia |
| **WASMPC** | Western Australian Marine Pollution Controller |
| **STATE HAZARD PLAN MEE** | State Hazard Plan Maritime Environmental Emergencies (MEE) |
| **WMC** | Waste Management Coordinator |

### 1.4 Glossary of Terms

**AMOSC Plan:** Is managed by AMOSC and outlines the cooperative arrangements for response to oil spills by Australian oil and associated industries.

**Control Agency**: The agency or company assigned by legislation, administrative arrangements or within the relevant contingency plan, to control response activities to a MOP emergency. The Control Agency will have responsibility for appointing the Incident Controller.

**Control**: The overall direction of emergency management activities in a designated emergency. Authority for control is established in legislation or in an emergency management plan and carries with it the responsibility for tasking and coordinating other organisations in accordance with the needs of the situation. Control relates to situations and operates horizontally across organisations.

**End Point Criteria:** Criteria established as part of the Incident Action Plan to determine points for terminate response activities.

**Environment:** Means the complex of physical, chemical and biological agents and factors that may impact a person or a community, and may also include social, physical and built elements, which surround and interact with a community.

**Environmental and Scientific Coordinator**: Nominated person who provides scientific and environmental advice to the IC or SMPC.

**First Response Agency:** Agencies assigned to a MOP emergency district to respond on behalf of the Jurisdictional Authority as per a Memorandum of Agreement.

**Incident Action Plan:** The plan used to describe the incident objectives, strategies, resources and other information relevant to the control of an incident.

**Incident Controller:** Means the individual responsible for the management of all incident control activities across a MOP emergency.

**Incident Control Centre:** Primary control area and base of operations for the IMT. There is only one ICC for any MOP emergency.

**Incident Management Response Register:** The IMRR is comprised of personnel from the Jurisdictional Authority, Control Agencies and Support Agencies trained to perform IMT Unit Officer roles within an IMT.

**Incident Management Team:** The IMT is the group of incident management personnel comprised of the IC and personnel appointed by the IC to be responsible for the control of the response to a MOP emergency.

**Jurisdictional Authority:** The Agency that has the jurisdictional or legislative responsibility to ensure there is adequate prevention of, preparedness for, response to and recovery from a specific emergency.

**Marine Oil Pollution Emergency**: Actual or impending spillage, release or escape of oil or an oily mixture that is capable of causing loss of life, injury to a person or damage to the health of a person, property or the environment.

**National Plan for Maritime Environmental Emergencies**: Sets out national arrangements, policies and principles for the management of maritime environmental emergencies. It provides for a comprehensive response to maritime environmental emergencies regardless of how costs might be attributed or ultimately recovered.

**Net Environmental Benefit Analysis:** A structured approach used by the response community and stakeholders during oil spill preparedness planning and response, to compare the environmental benefits of potential response tools and develop a response strategy that will reduce the impact of an oil spill on the environment.

**Offshore Petroleum Facility:** Means a facility operating in accordance with the provisions of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* or the equivalent State legislation.

**Oil**: Hydrocarbons in any liquid form, including crude oil, fuel oil, sludge, oil refuse, refined products and condensates. Also including dissolved or dispersed hydrocarbons, whether obtained from plants or animals, mineral deposits, or by synthesis.

**Oil Spill Contingency Plan / Oil Pollution Emergency Plan:** A documented scheme of assigned responsibilities, actions and procedures, required in the event of a Marine Oil Pollution (MOP) emergency.

**Port, Port Operator, Port Facility Operator:** Any supplier of goods or services at a maritime facility within the boundaries defined by the *Shipping and Pilotage Act 1967* and *Port Authorities Act 1999*.

**Staging Area**: An area where resources are mustered and prepared for allocation to an incident. It may include the provision of welfare and equipment maintenance facilities.

**State Marine Pollution Controller:** Is the nominated individual who has overall responsibility for ensuring that a response to a major incident within their relevant jurisdiction is managed and coordinated appropriately.

**Support Agency**: An organisation or body providing support to a Control Agency. This may be in the form of equipment, personnel or logistics.

### 1.5 Jurisdictional Authority and control Agencies

State Hazard Plan Marine Environmental Emergencies (MEE) contains information relating to the arrangements for managing marine oil pollution and marine transport emergencies. It must be read in conjunction with the state emergency management plan, which contains the generic emergency management; this document also outlines the Jurisdictional Authority and Control Agencies for MOP emergencies and outlines their respective responsibilities for Prevention, Preparation, Response and Recovery (PPRR).

Table 1 prescribes the responsibilities for response to MOP emergencies.

**Table 1.1**

| LOCATION | SPILL SOURCE | JURISDICTIONAL AUTHORITY | CONTROL AGENCY (*) | |
|---|---|---|---|---|
| | | | Level 1 | Level 2/3 |
| Commonwealth waters | Offshore Petroleum Activity | NOPSEMA | Petroleum Titleholder | Petroleum Titleholder |
| | Vessels | AMSA | AMSA | AMSA |
| | Marine Transport Emergency | AMSA | AMSA | AMSA |
| State waters | Offshore Petroleum Activity | DoT | Petroleum Titleholder | DoT** |
| | Vessels | DoT | DoT*** | DoT |
| | Marine Transport Emergency | DoT | DoT* | DoT |
| Port Authority (PA) waters | Offshore Petroleum Activity | DoT | Petroleum Titleholder | DoT |
| | Vessels | DoT | PA*** | PA / DOT**** |
| | Marine Transport Emergency | DoT | PA*** | PA / DOT**** |

For spills originating from land into State waters refer to State Hazard Plan – HAZMAT

*Notes:*

*The Controlling Agency remains true to the incident initial location. If a Maritime Environmental Emergency crosses over defined waters boundaries, the Controlling Agency will remain with the original nominated agency or organisation unless otherwise appointed through agreement between the HMA / Jurisdictional Authority of both waters.*

*AMSA may request that DoT manage an incident in Australian Government waters.DMIRS is the Regulatory Agency for Offshore Petroleum Activities in State waters and have the responsibility to approve OSCPs and to administer their relevant legislation. DoT remains the HMA for spills sourced from Offshore Petroleum Activities in State waters.*

*(*) A level 1 incident may be managed under existing Waterways Safety Management protocols or Port Operation procedures. Decision to appoint an Incident Controller and nominate a Controlling Agency will be based on the nature of the incident.(**)In the event of a Level 2/3 incident resulting from an Offshore Petroleum activity in Australian Government waters that impacts State waters, the role of Controlling Agency will be performed by DoT for response activities in State waters. Petroleum Titleholders are tosure they are compliant with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009, Reg 14 (8AA), (a), (b), (c) (d).*

*(***) DoT and PA may assign, through IMPs/OSCPs/OPEPs, emergency response functions to a Port Operator or Port Facility Operator for spills originating from their activities, however the role of Controlling Agency will remain with the nominated agency or organisation as above.*

*(****) In the event of a Level 2/3 incident originating in Port Waters the HMA/SMPC in consultation with the Port Authority deems that it is more suitable for DoT to be the Controlling Agency. In this circumstance, the role of Controlling Agency will be performed by DoT for response activities in port waters*

The SMPC may confirm in writing the Control Agency during a MEE.

In a MEE, should a Control Agency be deemed by the HMA/SMPC being incapable of providing an adequate response, he/she may reassign the role of the Control Agency.

### 1.6 Western Australian Hazard Management Arrangements

The *Western Australian Hazard Management Act 2005* as amended specifies the Hazard Management Agencies (HMA) for Western Australia. As the HMA, the Chief Executive Officer, DoT, has overall responsibility for ensuring there is an adequate response to a marine oil pollution and/or a marine transport emergency in all State and Port waters. Chief Executive Officer, DoT WA is the Jurisdictional Authority for marine environmental emergencies within State Waters and Pilbara Ports - Dampier is the Control Agency for marine oil pollution emergencies within Port of Dampier Port Limits. However, In the event of a Level 2/3 incident in Port

Waters it is deemed by the HMA/SMPC in consultation with the Port Authority that it is more suitable for DoT to be the Controlling Agency. In this circumstance, the role of Controlling Agency will be performed by DoT for response activities in port waters.

For an actual or impending spill of hazardous materials by a ship in State waters, or at berth, and where the hazardous materials and/or the mitigating actions required will not affect the structural integrity of the ship, then the emergency shall be regarded as a hazardous materials (HAZMAT) emergency and management of the emergency will be addressed through State Hazard Plan – HAZMAT.

In relation to ships in State waters, or at berth, in which the emergency includes HAZMAT, and in which the hazard and/or the mitigating actions required may affect the structural integrity of the ship, then the emergency shall be regarded as a Marine Transport Emergency (MTE). DFES will be responsible for the

HAZMAT component of the emergency. In relation to MEE spill of hydrocarbons like condensate, when spilled oil is hazardous due to dangerous vapour or other hazards, the HMA is  The Chief Executive Officer, Department of Transport (DoT)*.

The Chief Executive Officer, Department of Transport (DoT) is the Hazard Management Agency (HMA) for marine oil pollution and marine transport emergencies.

Where spills of oil originating on land enter State or Port waters, the Fire and Emergency Services Commissioner is the HMA. The management arrangements for these land spills are detailed in the State Hazard Plan – HAZMAT.

*Notes:*

*(*) Confirmed in consultation with DoT*

## 1.7 Legislation

This plan meets Pilbara Ports Port Dampier's international, national and state obligation under the following conventions, acts, regulations and integrates with the following plans:

**Table 1.2**

| CONVENTIONS, ACTS AND PLANS | |
|---|---|
| Convention | Requirements |
| IMO1990 International Convention on Oil Pollution Preparedness, Response and Co-operation (the OPRC Convention). | Provision for contingency plans for ships, offshore platforms, coastal terminals and ports, and for the development of national response plans. |
| Acts | |
| Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999) as amended. | Provides for protection of the environment and biodiversity in accordance with international conventions of which Australia is a signatory. |
| Protection of the Sea (Prevention of Pollution by Ships) Act, 1983 as amended and Marine Orders Parts 91 and 93. | Implements the International Convention for Prevention of Pollution from Ships (MARPOL). S11A requires vessels to have a Shipboard Oil Pollution Emergency Plan (SOPEP).<br>Prohibits the discharge of oil or oily mixtures within coastal waters and sets penalties.<br>Requires the reporting of all oil pollution incidents S11 [1] and sets penalties for failure to comply.<br>A number of Marine Orders issued and administered by Australian Maritime Safety Authority (AMSA) under this Act. |
| The Western Australian Pollution of Waters by Oil and Noxious Substances Act 1987 (POWBONS) as amended. | The WA Act implementing MARPOL for state waters. Port Authorities are considered “Appropriate Authorities” under POWBONS and have a Statutory Authority responsibility to respond to spills of oil and noxious substances within port waters. |
| Port Authorities Act 1999 as amended | The Port Authorities Act 1999 (WA) details the functions, the areas that they are to control and manage, the way in which they are to operate and related matters. |
| Plans | |
| National Plan for Marine Pollution Emergencies | National arrangement for Marine Pollution Emergencies.<br>Maritime Emergency Response Commander (MERCOM) and the powers of intervention.<br>Combat Agency Arrangements. |
| STATE HAZARD PLAN Marine Environmental Emergencies (MEE) | This document contains information relating to the arrangements for managing marine oil pollution and marine transport emergencies. It must be read in conjunction with the state emergency management plan, which contains the generic emergency management, |

| | |
|---|---|
| Western Australia (WA) Oil Spill Contingency Plan | Outlines the procedures and arrangements for responding to and recovering from marine oil pollution emergencies in state waters. |
| WA Oiled Wildlife Response Plan (OWRP) | Provides guidance to oiled wildlife response agencies to the approach to an oiled wildlife marine pollution response. |

### 1.8 Integration with PILBARA PORTS Plans, Manual and Procedures

The MPCP Port of Dampier integrates with and is supported by:

- The Pilbara Ports Business Continuity Plan
- The Pilbara Ports Crisis Management Plan
- The Pilbara Ports Emergency Response Plan

### 1.9 Risk Assessments

Det Norske Veritas produced a report for AMSA on Marine Oil Pollution Risks for the Australian Coast. In the report, the Pilbara coastline rated high risk for a marine pollution incident and the Port of Dampier is rated as a high risk for a marine pollution incident.

The following are the main causes of marine pollution emergencies:

- Collision between vessels
- Allision with a navigation aid or wharf
- Grounding
- Illegal discharge
- Lack of proper controls during bunkering or cargo transfer

The risk of a marine pollution incident is increased by;

- Poor seaworthiness of vessels
- Negligence and/ or competence of the owner/operator, master or crew/ pilots
- Age of the fleet
- Size/type of vessel
- Stowage and control of cargoes
- Type/amount of chemical(s) and oil carried
- Proximity of navigation hazards
- Traffic density
- Environmental factors including tidal flow and weather etc.

The main threat to Port of Dampier and adjacent waters is;

- Heavy Fuel Oil (HFO)

- Marine Grade Oil (MGO)/ NATO F76
- Automotive diesel fuel (across DFB, BLB DCW and TDSB facilities)
- Unleaded petroleum (ULP)
- Aviation turbine fuel (Jet A1 @ TDSB)
- Hydraulic oils

Summary of Risk Assessment Findings:

**Table 1.3**

| THE TEN MOST LIKELY SCENARIOS | | | | | | |
|---|---|---|---|---|---|---|
| Marine incident | Tide | Location | Possible oil type | Possible Oil Spill Level | Eventual location of oil | Consequence |
| Accidental / deliberate discharge 487 | Flood | KBSB | Diesel | 1 | King Bay | Significant |
| Accidental / deliberate discharge 607 | Flood | TDSB | Diesel | 1 | King Bay | Significant |
| Accidental / deliberate discharge 488 | Ebb | KBSB | Diesel | 1 | King Bay | Significant |
| Accidental / deliberate discharge 608 | Ebb | TDSB | Diesel | 1 | Dampier town foreshore | Negligible |
| Accidental / deliberate discharge 517 | Flood | KBSB | Oil based drill mud | 1 | King Bay | Minor |
| Accidental / deliberate discharge 637 | Flood | TDSB | Oil based drill mud | 1 | King Bay | Minor |
| Accidental / deliberate discharge 518 | Ebb | KBSB | Oil based drill mud | 1 | King Bay | Minor |
| Accidental / deliberate discharge 638 | Ebb | TDSB | Oil based drill mud | 1 | Dampier town foreshore | Negligible |
| Accidental / deliberate discharge 847 | Flood | Parker Point | Diesel | 1 | East Lewis Island | Negligible |
| Accidental / deliberate discharge 848 | Ebb | Parker Point | Diesel | 1 | King Bay | Significant |

**Table 1.4**

| INDICATIVE VOLUMES | | | | | | |
|---|---|---|---|---|---|---|
| Source | Incident | Location | Oil Type | Potential Volume[1] | | |
| Bulk Ore Carrier | Grounding | Anchorage, | Heavy Fuel Oil/ | <60,000 Dwt | 2,200t HFO | 300t MGO |
| | (Total loss) | Channel or | MGO | 60,000-90,000 Dwt | 4,500t HFO | 380t MGO |
| | | Harbour | | 90,000-160,000 | 4,500t HFO | 400t MGO |
| | | | | 160,000-250,000 | | |
| | | | | >250,000 | | |
| | Grounding (Bottom Tank) | | Heavy Fuel Oil | Up to 400t | | |
| | Collision with wharf or another vessel | Harbour/Wharf or Channel | HFO or Diesel | Up to 150t | | |
| Fuel/Oil Tanker | Grounding | Anchorage, | CPP 2 Bunkers | Up to 5,000t<br>Up to 750t | | |
| | | Channel or | CPP 2 Bunkers | Up to 5,000t<br>Up to 750t | | |
| | | Harbour | CPP 2 Bunkers | Up to 5,000t<br>Up to 750t | | |
| | Collision (total loss) | | CPP 2 Bunkers | Up to 40,000t<br>Up to 3,000t | | |
| | Unloading accident | DFB BLB | CPP 2 | Up to 10t | | |
| Commercial Vessel | Grounding (Total Loss) | Anchorage, Channel or Harbour | Diesel | 50t | | |
| | Collision | Harbour/Wharf or Channel | Diesel | 25t | | |
| Tug/Pilot Vessel | Grounding (Total Loss) | Channel or Harbour | Diesel | 30t | | |
| | Collision with wharf or another vessel | Harbour/Wharf or Channel | Diesel | 30t | | |
| Bunkering | Pipeline breach or other loading accident | DCW<br>KBSB<br>DFB<br>TDSB | Diesel | 25t (Based on 15 minute loss of control) | | |

## 2. MOP EMERGENCY RESPONSE STRUCTURE

### 2.1 Incident Controller

The Incident Controller (IC) for all marine pollution incidents is the Harbour Master or delegate.

### 2.2 Incident Control System

Pilbara Ports Port of Dampier has adopted the Australasian Inter-Service Incident Management System (AIIMS) for incident management as per Pilbara Ports Port of Dampier Incident Management Plan. AIIMS has been adopted to ensure interoperability with all response agencies and to provide a known structure that can be adapted to suit the response requirements.

The IC will assess the required response effort and adjust the size and scale of the response to meet the specific incident requirements. That is, the IC will determine the number of responders required and the functional areas that are established to form the Incident Management Team (IMT).

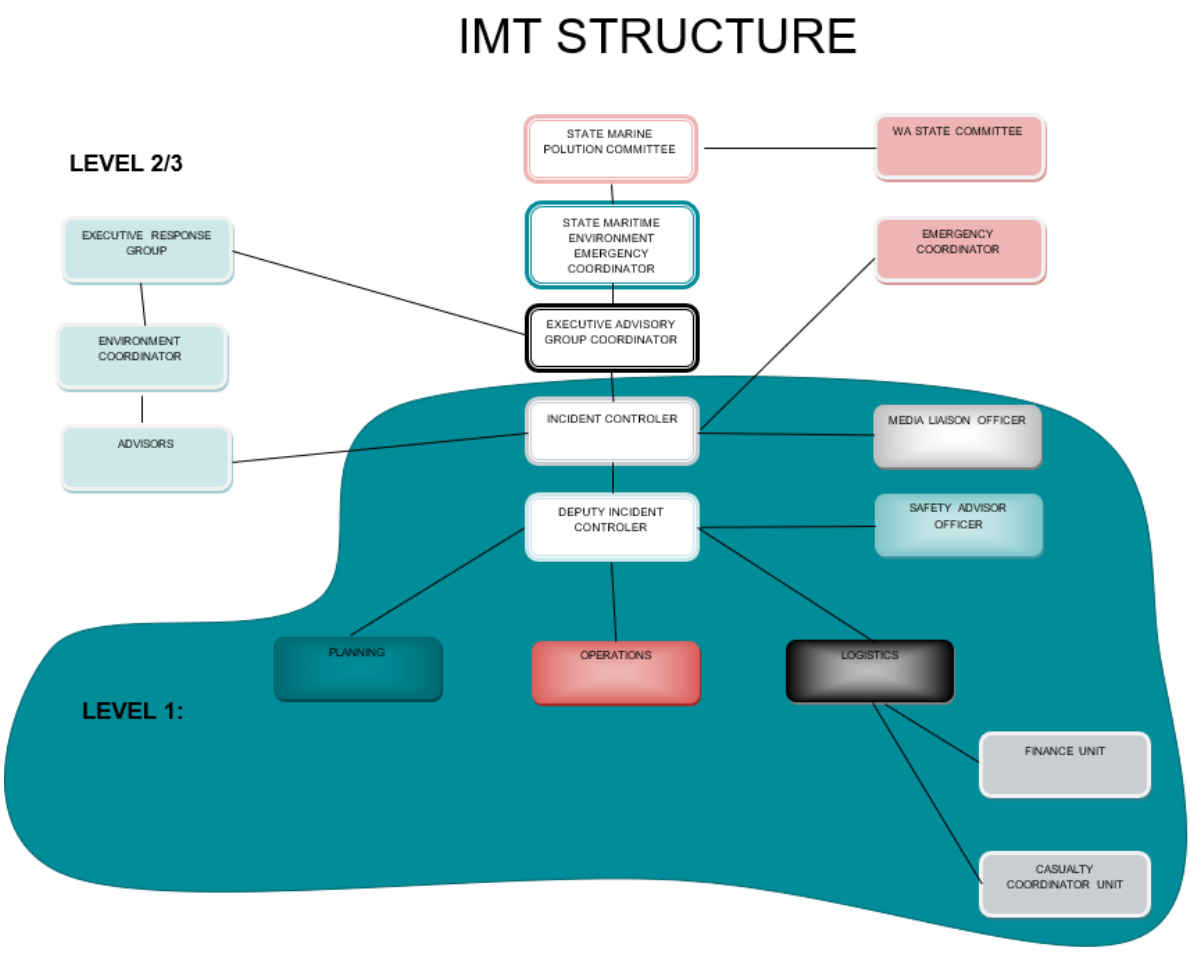
### 2.3 Incident Level Classifications

As per the National Plan the following incident classifications are used:

- **Level 1** – are generally able to be resolved through the application of local or initial resources only (e.g. first-strike capacity).
- **Level 2** - are more complex in size, duration, resource management and risk and may require deployment of jurisdiction resources beyond the initial response
- **Level 3** – Incidents are generally characterised by a high degree of complexity that is likely to require national and international resources.

If assessed as a Level 2 or 3 incident, the Incident Controller must make an ‘Incident Level Declaration’ to the SMPC.

**IMT Structure for Level 1** **Figure 2.1**




Media and public relations will be coordinated by the Pilbara Ports communications team in conjunction with DOT. The communications team is contactable by;

Mobile: 0447 072 294 Email: media@pilbaraports.com.au

**Incident Management Team Structure for a Major Response** **Figure 2.2**

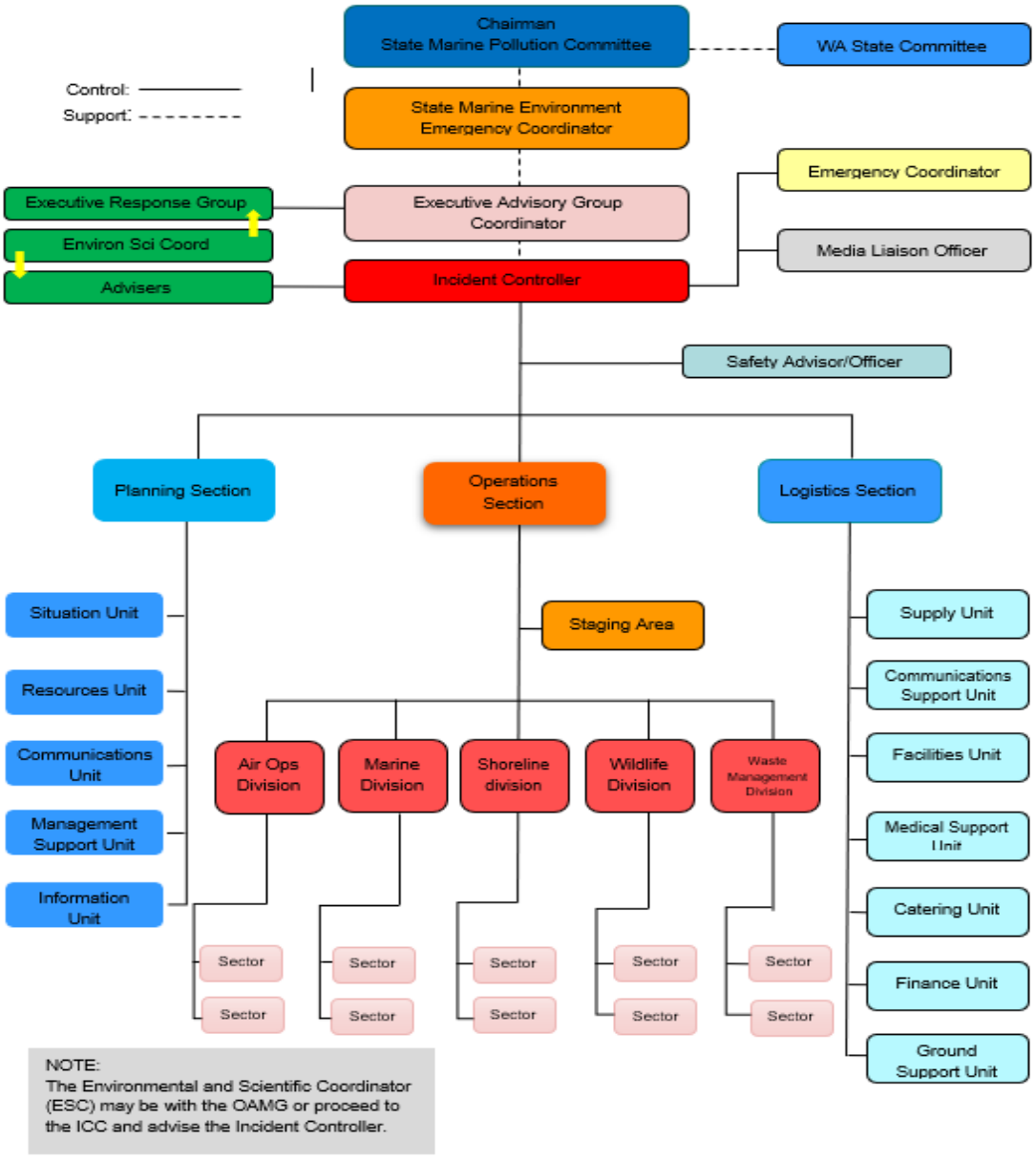


**Table 2.1**

| FUNCTION | | ROLE |
|---|---|---|
| Incident Control(1) | Incident Control(1) | The overall planning and control of the spill response. |
| | Media Liaison(1) | Manages media relations. Prepares press statements, organises press briefings and supports the Incident Controller in dealing with media. |
| | Incident Safety | For larger responses an Incident Safety Officer (ISO) may be appointed to oversee sites safety management. |
| Planning(1) | The coordination. Monitoring and review of Incident Action Plans. Planning personnel will collate the information and consolidate the policies, objectives, strategies and tactics developed by the Incident Controller/IMT. Specific functions include: | |
| | Situation | The collection, processing and organisation of information. E.g. oil spill trajectory modelling, weather, sea-state. |
| | Resources | Tracking of the deployment of resources. |
| | Environment | Responsible for the collection and collation of environment data/ advice, e.g. obtaining environmental data from OSRA, MEER and local sources. |
| | Consultation | Consultation with the non-indigenous community and commercial operations. |
| Operations(1) | Directs all “field” operations in the response, which may include: | |
| | Marine | Coordination and direction of all activities undertaken by waterborne craft and equipment. |
| | Aviation | Coordination and direction of all activities undertaken utilising aircraft, e.g. aerial dispersant spraying, aerial surveillance and transport. |
| | Shoreline | Planning and coordination of shoreline assessment and clean-up activities. |
| | Wildlife | Implementation of the WA Oiled Wildlife Plan, i.e. the collection, treatment and rehabilitation of oiled wildlife. Responsibility of DBCA |
| | Occupational Health and Safety | Development and implementation of the Occupational Health & Safety Sub-Plan. |
| | Waste Management | Coordination of the containment, storage, transport and disposal of recovered oil and oily waste. Instruction in on-site handling, storage and/or separation and treatment. |
| Logistics(1) | | |

| | | |
|---|---|---|
| | Responsible for ensuring that the IMT is provided with adequate resources to enable an effective response. Specific functions include: | |
| | Procurement | Acquisition of personnel and equipment. |
| | Services | Acquisition of services and facilities. |
| | Transport | Provision of aviation, land and sea transport services. |
| | Communications | Preparation of Communications Sub-Plan and for ensuring the provision of communications services and support. |
| | Medical | Provision of medical services where needed. |
| Finance and Administration(1) | Responsible for the provision of administrative services to the IC, Sections and Units of the IMT, and for the management of financial (costs) information. Functions include: | |
| | Administration | Administrative services to operate telephones, facsimiles, computers, radios (if qualified) and messenger services. |
| | Finance | Accounting and contracting services. |
| | Records | Collation and filing of records and forms including, time sheets, equipment usage records and personnel records. |
| | ICC Management | Ensures effective operation of the ICC, including management of information transfer within the ICC, (Status Boards, faxes/ messages delivery/despatch), administering the meeting schedule, ICC security etc. |

***(1) Denotes a designated Pilbara Ports Level 1 IMT Role***

### 2.4 State marine pollution controller (SMPC)

The DOT Assistant Executive Director Maritime (AEDM) is the SMPC as per the STATEHAZARD PLAN Marine Environmental Emergencies (MEE). For Level 1 incidents the interaction between the SMPC and the IC will be limited. Updates will be passed via Pollution Report (POLREP) or Situation Report (SITREP).

For level 2 and level 3 incidents, in PA waters, the role of Controlling Agency may fall with the PA or DoT and will be determined by the HMA in consultation with the PA. The Controlling Agency will be the agency deemed most capable of performing the role of Controlling Agency.. The statement of intent should generally follow the order of response priorities outlined below with a focus on the safety of life and minimising the impact.

For level 2 and level 3 incidents the SMPC will provide a DOT liaison officer in the IMT. This will generally be a member of the MEER, who will be rapidly mobilised to site.

### 2.5 Inter-agency and External Liaison

Where the IMT is liaising with another agency such as DFES, consideration should be given to include a representative of that agency to in the IMT as a liaison and advisor. This will facilitate better communication and will allow for a fuller assessment of the response requirements and ensure a more coordinated and efficient response.

A representative of the vessels Protection and Indemnity Club (P&I Club) should be present within the IMT as an advisor to ensure that there is open communication and involvement for the P&I Club.

## 3. REPORTING AND DETERMINING THE SCALE OF RESPONSE

### 3.1 Initiating the response

Reporting and response activation consists of four Procedures:

- Reporting of the incident  Figure 3.1
- Assessment of the situation and determination of the appropriate level of response Table 3.1
- Establishment of an Incident Control Centre (Annex 3, Procedure A)
- Activation of the Incident Management team (Annex 3, Procedure B)

### 3.2 Reporting Procedures

- Reporting Procedures are summarised in Figure 3.1

### 3.3 Receiving External Reports

Reports of oil spills or sightings of oil on the sea may come from a variety of source.

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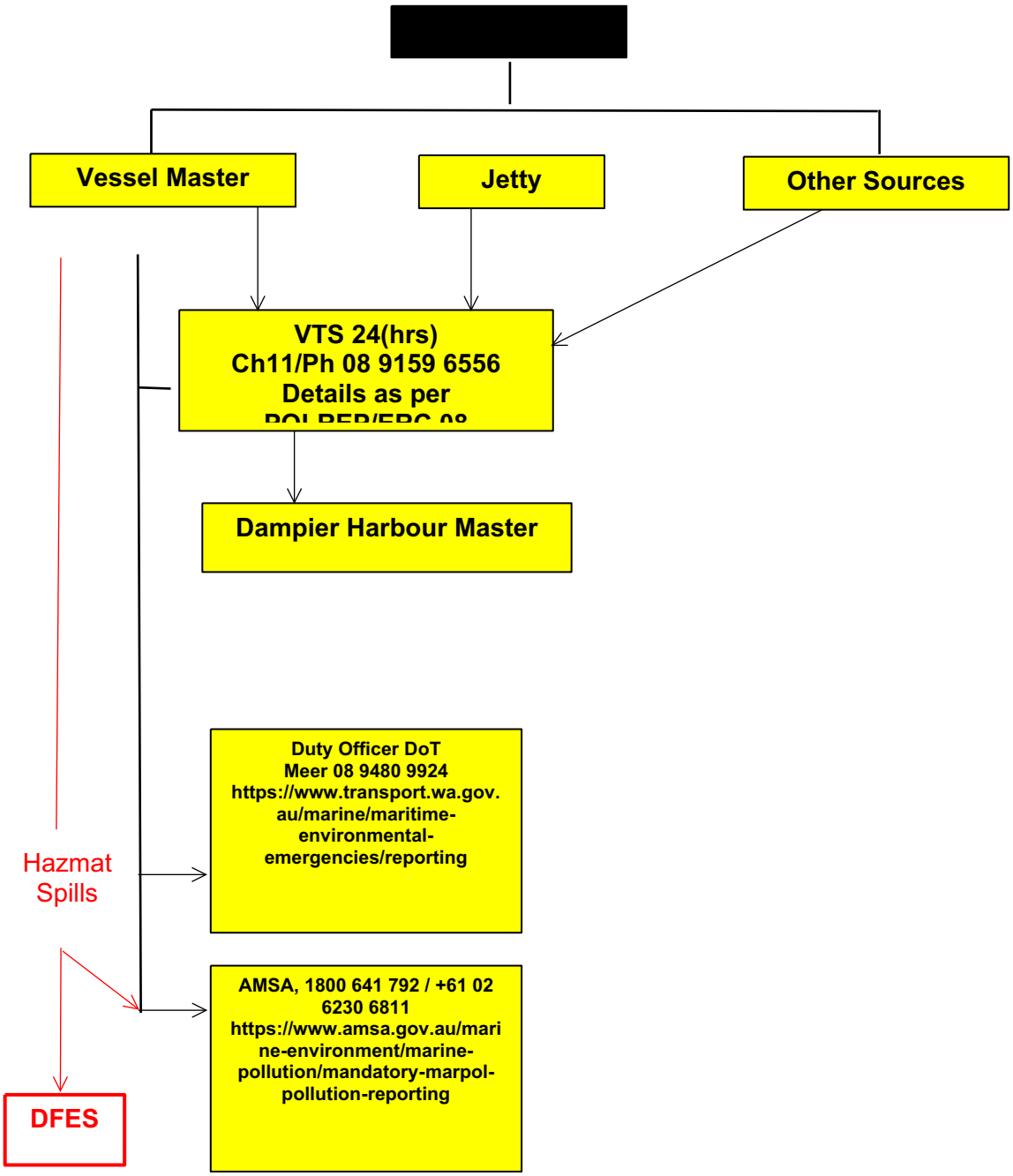
**Reporting Sequence** **Figure 3.1**



### 3.4 Scale of the Response

Based on the initial report and subsequent confirmation the IC shall determine the required response. This determination is to include the level of the response and an initial assessment of the requirement for state or national assistance.

Where state or national assistance is required the IC is to contact the duty officer at MEER on the number above and request state and/or national assistance as appropriate. The request is to be backed up with an email when convenient.

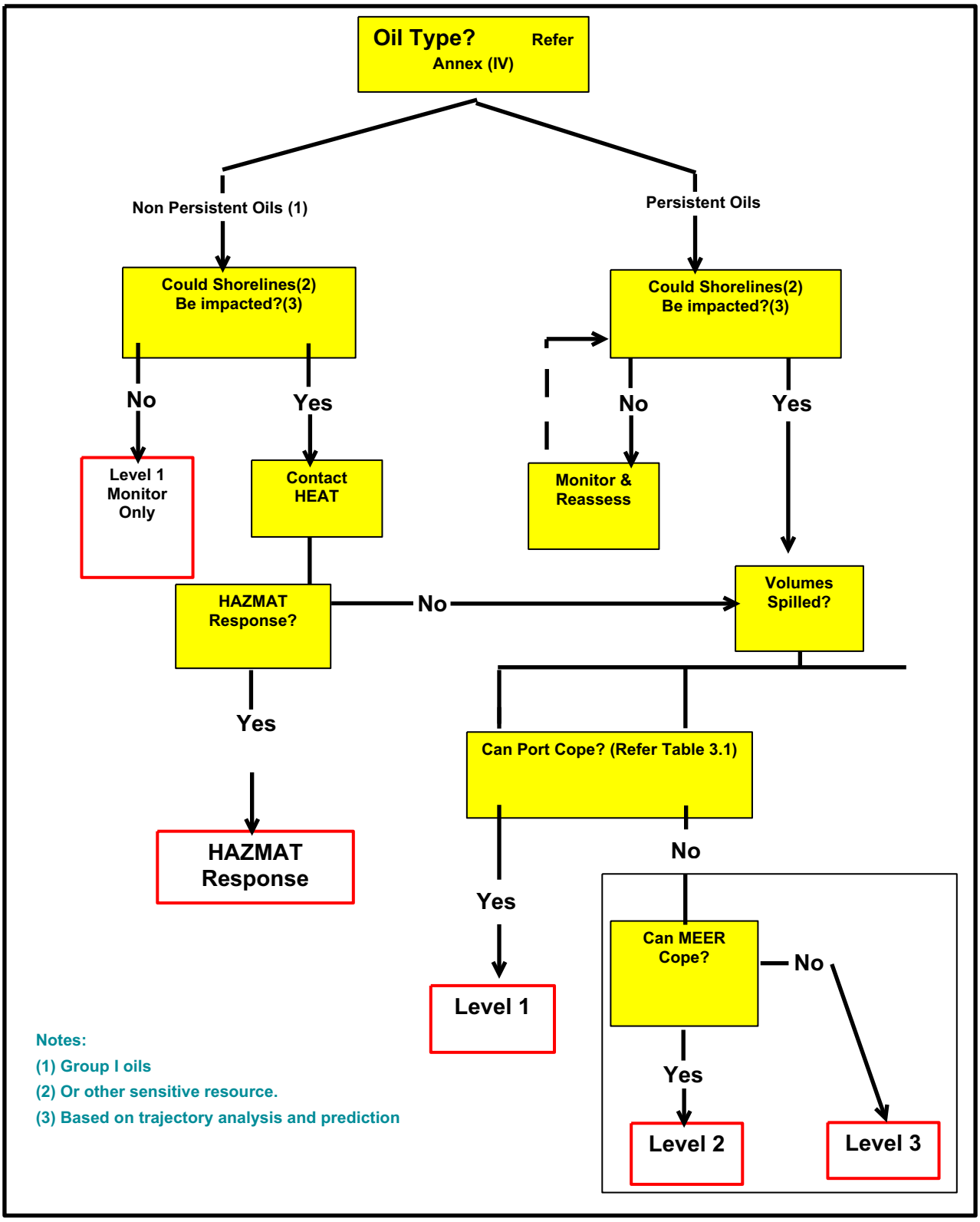
The Incident Controller has a responsibility to continually assess the incident level and regularly confirm that assessment with the SMPC. State and national assistance can be requested at any point in the response. There will be a lag between the request and arrival of resources on site. Assistance should be sought early from the state or national response team to minimise the impact of mobilising resources.

To assist in determining the level of MOP emergency, the below Table provides a non-exhaustive list of the general characteristics of each of the three levels. These characteristics can be used to develop criteria for consideration when evaluating the need to escalate response arrangements.

**Emergency Classification and Activation Triggers** **Table 3.1**

| CHARACTERISTIC | LEVEL 1 | LEVEL 2 | LEVEL 3 |
|---|---|---|---|
| **MANAGEMENT** | | | |
| **Jurisdiction** | Single jurisdiction | Multiple jurisdictions | Multiple jurisdictions |
| **Delegation** | Incident Controller responsible for all functions | Some functions delegated or divisions created | All functions delegated and/or divisions created |
| **Number of agencies** | First-response agency | Routine multi-agency response | Agencies from across government and industry |
| **Incident Action Plan** | Simple/Outline | Outline | Detailed |
| **Resources** | Resourced from within one area | Requires intra-state resources | Requires national or international resources |
| **TYPE OF EMERGENCY** | | | |
| **Type of response** | First-strike | Escalated | Campaign |
| **Duration** | Single shift | Multiple shifts<br>Days to weeks | Extended response<br>Weeks to months |
| **Hazards** | Single hazard | Single hazard | Multiple hazards |
| **RESOURCES AT RISK** | | | |
| **Human** | Potential for serious injuries | Potential for loss of life | Potential for multiple loss of life |
| **Environment** | Isolated impacts or with natural recovery expected within weeks | Significant impacts and recovery may take months. Remediation required | Significant area and recovery may take months. Remediation required |
| **Wildlife** | Individual fauna | Groups of fauna or threatened fauna | Large numbers of fauna |
| **Economy** | Business level disruption | Business failure | Disruption to a sector |
| **Social** | Reduced services | Ongoing reduced services | Reduced quality of life |
| **Infrastructure** | Short term failure | Medium term failure | Severe impairment |
| **Public Affairs** | Local and regional media coverage | National media coverage | International media coverage |

## Guideline for Determining the Level of Response Figure 3.2



# 4. ESTABLISHING CONTROL

## 4.1 Role of Incident Controller

Once appointed by the Control Agency, the IC has the responsibility for the overall management and control of the MOP emergency and the tasking of Support Agencies as required. The responsibilities of the IC include but are not limited to:

- Take charge and exercise leadership, including the establishment of a management structure
- Set objectives for the response to the incident, considering the safety of communities as a priority
- Develop and approve plans and strategies (IAP) to control the incident
- Implement the IAP and monitor its progress
- Provide information and warnings to communities and other relevant groups, so informed decisions can be made
- Establish effective liaison and co-operation with all relevant agencies, affected communities and others external to the IMT
- Obtain and maintain human and physical resources required for the resolution of the incident
- Apply a risk management approach, and establish systems and procedures for the safety and welfare of all persons working at the incident
- Ensure relief and recovery considerations are addressed and that services are provided to the persons and communities impacted by the incident
- Ensure collaboration between response and recovery agencies

## 4.2 Incident Management Team

The IC will initiate the establishment of the IMT structure commensurate to the MOP emergency level requirements. The IC should ensure personnel fulfilling IMT roles have completed relevant training and accept the responsibility of the nominated role.

## 4.3 Incident Control Centre (ICC)

The designated ICC for Port Dampier is the Incident Room which is located adjacent to VTS.

Functional area folders are located in lockers in theTIMS building . The folders contain the relevant forms, plans and associated items to assist in the management of the functional areas.

The following table outlines the functional areas breakout rooms;

**Table 4.1**

| ICC LOCATIONS | | |
|---|---|---|
| **Functional Area** | **Breakout Room** | **Alternate Location** |
| ICC | Incident Control Room | Training and Incident Management room |
| Planning | Marine Operations Meeting Room | Training and Incident Management room |
| Operations | Marine Building Shared Work Space Upstairs | Training and Incident Management room |
| Finance | Marine Building Shared Work Space Upstairs | Training and Incident Management room |
| Logistics | Marine Building Shared Work Space Upstairs | Training and Incident Management room |
| Media | CEO's Office (Perth, Dampier, Port Hedland) | |

## 4.4 Field Teams

For teams deploying into the field, a dedicated team leader will be appointed. This will be a member of the Oil Spill Incident Response Team (OSIRT) who has been assessed as competent. The team leader will provide direction and leadership to field teams and communicate back to the sector or functional area. The size of the team will be based on the team leader's span of control.

## 4.5 Planning Process

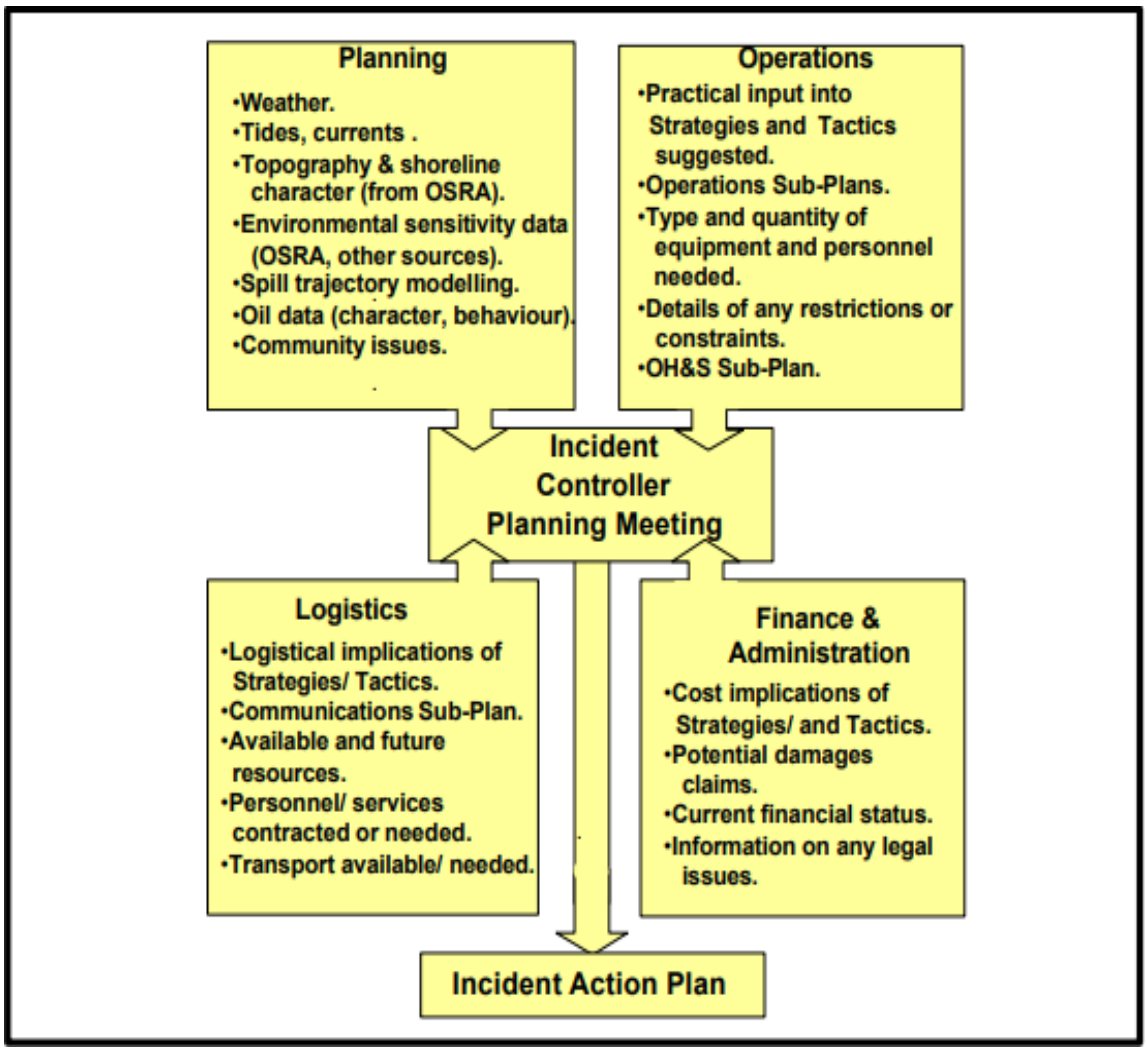
Planning of the response is the responsibility of the IC but involves all key IMT personnel and advisers.

### Information Inputs to the Planning Process

The key to effective planning is the acquisition and the application of information.

Figure 4 illustrates the information inputs of the key IMT members into the planning process and demonstrates the need to involve all key IMT members in the process.

**Inputs to the Planning Process** **Figure 4.1**




### 4.5.1 The Incident Planning Cycle

The planning process is ongoing and involves a number of procedures:

- Initial Planning (Briefing) Meeting
- Development of the Incident Action Plan
- Execution of the Plan
- Feedback to Planning Section (collection and analysis of information)
- Ongoing Planning Meetings (to revise/update the Incident Action Plan)

### 4.5.2 Briefing

Planning Meetings should be preceded by a briefing, during which the IC, or other person(s) should detail:

- Current situation
- Spill location and size

- Combat and Support Agencies
- Response Level and resources mobilised
- Current shorelines and resources impacted
- Predicted situation
- Trajectory
- Resources at risk/ potential effects

#### 4.5.3 Other Actions

Following each Planning Meeting a designated IMT member will:

- Prepare a Personnel Requisition/Allocation Form 222 (A267244)

### 4.6 Records Management and Administrational Control

Maintaining records of all activities and decisions of a MOP emergency is a requirement of any level emergency. Records include any documentation created or received as part of a MOP emergency that could be used to recreate, prove or support a response related activity or decision. Records may be required for post spill activities, including Cost Recovery and Investigation processes, and therefore, the management of record-keeping and controlling the administrational requirements will need to be established immediately by the IMT. The Management Support Unit within Planning provides administrative support and will implement an approved records management process for the MOP emergency

**All personnel are responsible for maintaining personal logs of any actions they undertake and decisions they make during a MOP emergency unless otherwise advised by the IMT. Refer form 220**

## 5. RESPONSE

### 5.1 Incident Action Plan

The incident action plan (IAP) documents the MOP emergency response Objectives, prioritised operational Strategies and the corresponding response tasks. The Planning Unit is responsible for producing the Incident Action Plan in consultation with the Operations and Logistics unit. The completed IAP will require approval from the Incident Controller prior to becoming operational. Initial Response / First Strike Response plans, and Standard Operating Procedures or Work Orders can be used in support of an initial IAP to allow immediate response operations to be undertaken. The creation of such plans should have been undertaken using risk assessment techniques and subjected to a Net Environmental Benefit Analysis (NEBA).

#### 5.1.1 Planning considerations

When formulating the IAP, the Planning unit will also need to consider additional aspects of response planning that may be undertaken concurrently to the response operations.

### 5.1.2 Net Environmental Benefit Analysis (NEBA)

The overriding principle for marine pollution response is that the response efforts will have a net environmental benefit. That is the efforts to recover the oil will have less environmental impact than allowing the oil to weather naturally in the environment.

A NEBA is a detailed assessment of the net environmental benefit of response options. The NEBA is a valuable planning tool which allows the response options to be carefully assessed and the best option selected. A NEBA is required when seeking approval for the use of Oil Spill Control Agent (OSCA).

Pilbara Ports-Port of Dampier uses the DOT NEBA Template which is available from the link:

https://www.transport.wa.gov.au/mediaFiles/marine/MAC_F_PLAN_NetEnvironmentalBenifitAnalysis.pdf

The template outlines the required steps and guides the planning section through the process of conducting the NEBA.

When assessing the resources at risk, the following resources areas and sub sets should be considered:

- Water Surface
- Seabird feeding areas
- Waterbird feeding areas
- Marine mammals
- Aquaculture
- Social amenity
- Tourism
- Economic such as the shipping channel or inner harbour
- Shoreline Resources
- Mangrove habitats
- Intertidal mud or sand flats
- Beach type
- Rocks or rocky shorelines
- Bird feeding, roosting or nesting areas
- Heritage sites
- Social amenity
- Tourism
- Water Column
- Fish spawning areas
- Marine mammals
- Seabird feeding areas

- Benthic systems
- Commercial and recreational fishing
- Commercial water intake

## 5.2 Surveillance and Monitoring

### 5.2.1 Initial Assessment

The initial reporting of the incident will be based on limited and, in some cases, un-collaborated information. The information must be verified to allow a proper assessment of the size and scale of the incident.

### 5.2.2 Situational Awareness

The IC and IMT need to quickly gain situational awareness to determine:

- The scale of the incident
- The risk to environmental sensitivities
- The potential for a shoreline impact
- The need for resources

This can be gained quickly by vessel or aerial observation. Once situational awareness is initially gained, it needs to be maintained through regular vessel and / or aerial observations.

Visual observation will be extremely limited at night except possibly within close proximity of the wharves, or the use of a Forward Looking Infra-Red (FLIR) camera on fresh oil.

### 5.2.3 Aerial Observation

Aerial observation is a powerful tool in oil spill response. Aerial observation allows for the situation to be quickly and relatively accurately assessed. It also allows for confirmation of trajectory modelling and continued assessment of the effectiveness of response efforts.

The Helicopter New Zealand pilot transfer helicopter should be utilised as soon as practical to gain situational awareness.

The Pilbara Ports has available in-house drone aerial observation capability. Drone footage is available in real-time through an online platform accessible to all IMT and selected external members.

For initial assessments, a photo or sketch of the extent of the oil will be acceptable from the pilot. But for a more detailed analysis a trained aerial observer is required and should be put in the helicopter as soon as practicable.

For larger spills, the systematic use of aerial observation will be key to the success of the response. A program with regular over flight and observation should be scheduled. The flight should be scheduled as follows;

- An early morning flight to gain situational awareness from the night before and confirm trajectory modelling.
- An afternoon flight to update the IMT prior to afternoon briefs
- Flights as required to maintain situational awareness, such as for change of weather conditions or early on for large amounts of mobile oil

For very large spills with large amounts of mobile oil, the use of fixed-wing aircraft should be considered. Assistance from AMSA can be requested through DOT for the use of the search and rescue assets.

When making the assessment of oil in the water, guidance shall be taken from the Bonn Agreement Oil Appearance Code Atlas:

http://www.bonnagreement.org/site/assets/files/1081/photo_atlas_version_20112306-1.pdf

All Aerial observation shall be reported in line with AMSA guidance:

https://www.amsa.gov.au/sites/default/files/2014-01-mp-amsa22-identification-oil-on-water.pdf

### 5.2.4 Vessel Observation

Vessel observation can assist with developing or maintaining situational awareness. However, vessels are more limited in their ability to visually observe the oil due to the height of eye of the observer and the lower relative speed.

### 5.2.5 Oil Spill Response Atlas (OSRA)

Once the first strike response plan actions have been completed, situational awareness has been gained, and the trajectory of the oil has been predicted, an assessment of the resources at risk needs to be made. The OSRA contains information on:

- Shoreline character (i.e. sandy beach, rocky cliff etc.)
- Bathymetry (5m, 10m, 20m, 30m)
- Topography
- Biological resources
- Socioeconomic resources
- Infrastructure
- Access (and suitability for heavy equipment)
- Stockpiled resources

- Tide and current information
- Access to research data that contains information on the efficacy of dispersants

The Western Australian Oil Spill Response Atlas (OSRA) version 3.0 is a spatial database of environmental, logistical and oil spill response data. Using a geographical information system (GIS) platform, OSRA 3.0 displays datasets collated from a range of custodians allowing decision makers to visualise environmental sensitivities and response considerations for both contingency and incident planning.

https://www.transport.wa.gov.au/marine/maritime-environmental-emergencies/preparedness-reponse-resources

The OSRA 3.0 contains data that identifies the sensitive and valuable marine resources and other data that will assist in:

- The deployment of resources for combating spill
- Assessing the suitability of response strategies
- Determining response protection priorities
- Calculating sensitivities of areas being considered as 'Places of Refuge'
- Predicting the effort required for shoreline and wildlife response

## 5.3 Trajectory Modelling

Spill trajectories can be determined by:

- Direct observations (Surveillance)
- Manual calculation based on a vector diagram
- Computer modelling – OSTM Oil Spill Trajectory Modelling

Where trajectory modelling is produced, it should be verified by aerial observation to confirm validity. The modelling is based on assumptions and models which try to reflect real-world conditions. Small errors in the modelling can produce results that vary significantly from observations.

### 5.3.1 Spill trajectory Modelling

Computer-based oil spill trajectory modelling (OSTM) is available through AMSA and can be provided by them on request. The planning team will need to complete an AMSA Online Form National Plan Spill Trajectory Model Request.

The AMSA Online Form is available on the AMSA website through the request proforma in the below link;

https://www.amsa.gov.au/marine-environment/pollution-response/spill-trajectory-modelling

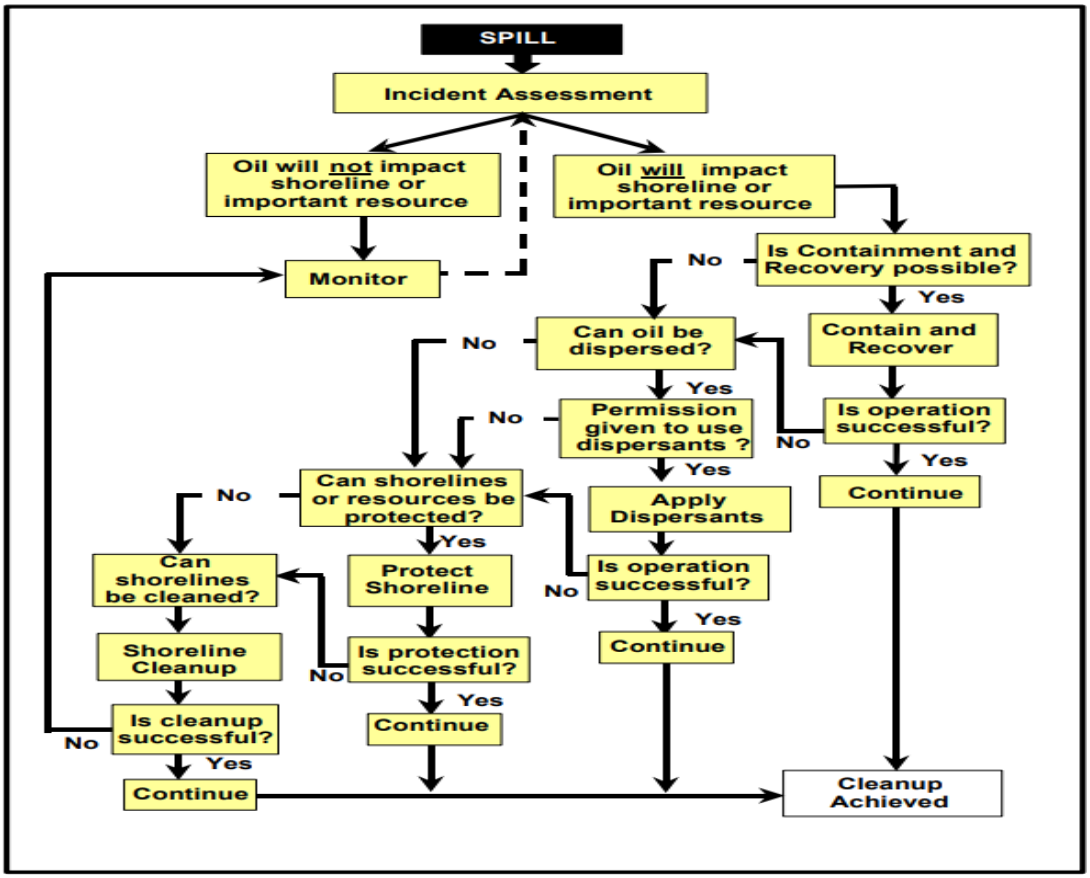
The trajectory modelling request from AMSA options: https://www.amsa.gov.au/forms/national-plan-spill-trajectory-modelling-request

- Complete the word form that can be found at the link here
- Call AMSA Joint Rescue Coordination Centre (JRCC) on 1800 641 792

## 5.4 Response Strategies

The decision to use a particular response strategy should be based on a NEBA, effectiveness of techniques and combined with feasibility of logistics and resourcing.

**Generic Guideline for determining Response Strategies** **Figure 5.1**




** Use of Dispersant should be in line with the consent framework as established and can be accessed from the following link

https://www.transport.wa.gov.au/mediaFiles/marine/MAC_P_DispersantUseConsentFramework.pdf

## 5.5 Response Methods

### 5.5.1 Physical Break-Up of the Oil Using Surface Craft

It may be possible to mechanically accelerate natural breakdown of the oil slick using vessels towing breaker boards through the oil. The operation of vessels in areas of possible fire hazard needs to be considered with this option.

### 5.5.2 Bioremediation

Bioremediation is the acceleration of hydrocarbon degradation of stranded or recovered oil/oily waste through the application of nutrients and/or bacteria. Although the technique has been applied for some years to industrial waste sites, it has been used in oil spills only experimentally, mainly on oiled shorelines and recovered oily waste. Little conclusive or detailed information is available on its effectiveness in tropical areas.

Inappropriate bioremediation techniques may lead to adverse environmental effects, e.g. contamination of ground water resources. Bioremediation options and procedures are to be discussed with and approved by the ESC. Any bioremediation activities will require appropriate environmental approvals and appropriately defined supervision and monitoring techniques.

## 5.6 Recovery Options

### 5.6.1 Natural Recovery

Natural recovery involves allowing the oil to degrade naturally over time. This is the preferred option where the oil does not pose a risk to sensitive natural or socioeconomic resources or where the net environmental impact of removing the oil is greater than allowing the oil to degrade naturally.

Areas, where natural recovery could be considered, include rock walls, harbour infrastructure and rocky coastlines. However, natural recovery is not a viable option for the mangrove areas.

Trajectory modelling combined with aerial observation will be required to ensure that the oil is tracking away from environmentally sensitive areas and the slick is weathering as predicted.

During monitoring, the response team should be prepared to move into a more active response in case the situation changes and oil threatens to impact coastal resources of a sensitive nature.

### 5.6.2 Floating oil recovery

The expanse of Mermaid Sound and Mermaid Strait, the number of possible incident scenarios and the number of different zones of impact, necessitates any physical oil spill response must be highly mobile. The risk

assessment, local experience and trajectory modelling all show that spilled oil may stay adrift for several days within Mermaid Sound.

In a Level One event Pilbara Ports has Australian Marine Services available to deploy its Oil Trawl, in conjunction with a contracted suction truck to empty the oil trawl bag.

In a Level Two or Three events Pilbara Ports has three sweep systems available from the National Plans Stocks:

- Ro-Boom, which can be configured in a “U” or “J” Sweep in conjunction with the GT185 skimmer;
- NOFI “V” Sweep Systems in conjunction with the GT185 skimmer; and
- MARCO Oil Recovery Vessel with booms connected for a “V” Sweep system.

Each of these would be suited to the conditions expected within Mermaid Sound.

However, all of these systems require some form of floating oil storage and transfer pump.

### 5.7 Protection, Deflection, Collection and Recovery

**Protection** involves the physical barricading of an area of high sensitivity through the deployment of booms.

For this technique to be successful, the oil slick should be located in an area of relatively quiet and still water as this method is dependent on a number of factors such as;

- Swell
- Wind
- Current

**Deflection** involves the physical deflection of migrating oil from an area of high sensitivity to a sacrificial area of lower sensitivity through the deployment of booms.

Careful monitoring and tending of booms is required as booms are susceptible to a number of failures including;

- Entrainment – where oil breaks away from the bottom of the boom due to wave and current turbulence
- Drainage – where oil captured in the boom escapes under the boom due to the presence of too much oil
- Splash over – where captured oil in the boom passes over the boom due to swell and chop

- Submergence – where the boom is pulled below the water surface because the towing speed is to high
- Planning failure – where the boom is forced parallel to the water surface as in blown over due to high winds

**Collection** The isolated sandy shorelines in the small bays provide an opportunity to deploy boom and capture oil which travels with the currents running parallel with the shorelines.

The boom deployments described in the First Strike Response Plan create oil collection points in the identified bays. Only one of these capture points (TDSB Slipway) has viable road access; therefore oil recovery and storage must be from seaward.

Boom deployment requires familiarity with boom deployment practices, the positioning of the boom and with the handling of a small craft. Vessels need to be powerful to tow the boom, highly manoeuvrable and of shallow draft.

However, boats should avoid intruding into mangroves as they may further compound the damage.

**Recovery**

Pilbara Ports Dampier currently has two skimmers:

- GT185 skimmer
- Foilex Weir Skimmer

Effective use of skimmers demands a ready supply of portable storage for recovered oil and debris.

Final clean up or removal of oil from difficult areas may be achieved through the use of sorbent materials applied from small craft to recover oil floating or entrapped in mangroves. Booms may also be used to combine the effect with sorbents in the absence of mechanical oil recovery equipment.

## 5.8 Oiled Shorelines

Many of the Islands in the Archipelago are composed of volcanic and granite rocks. Beaches and sand plains are formed mainly in the bays of the islands and are more extensive on the western islands. Mud and silt replace shelly sand in some bays. The flatter islets and islands to the north of the archipelago comprise dune limestone; most of the sand-plain are comprised of pink-brown limestone derived sand (Dampier Archipelago Nature Reserves Management Plan).

Because a significant area of the shoreline is boulder rock and steep rocky cliff areas, there is little opportunity to allow for shoreline clean-up operations. It would

therefore be impossible to clean these areas safely using manual labour and machinery. Access to these areas, land or by water, is non-existent.

### 5.8.1 Shore Line Response

To ensure the best outcome in the event of a shoreline impact, it is vital that a beach pre-assessment and pre-clean is undertaken to minimise the amount of waste collected.

Shoreline response involves a number of different components, including:

- Shoreline protection (deployment of boom or barriers to capture or deflect oil)
- Shoreline cleaning and remediation

Shoreline protection involves the deployment of booms or erecting of barriers to protect sensitivities. Shoreline cleaning and remediation involves manual or mechanical cleaning, washing methods or shoreline cleaners. Shoreline clean-up is resource intense and requires careful planning and execution.

The use of heavy machinery to clean shorelines is not recommended. Heavy machinery removes more sand than manual cleaning and can push oil into the substrate of the beach, which will result in the remobilisation of oil for an extended period.

### 5.8.2 Shoreline Response Strategies

A number of shoreline response strategies are available. However, all shorelines should be assessed in order to determine whether methods are suitable. This will depend on a number of factors, including:

- Rate and likelihood of natural cleaning
- Access for personnel and machinery
- Nature and distribution of the oil
- Shoreline character
- Availability of personnel and machinery
- Safety issues
- Environmental sensitivity to both oil and clean-up methods
- Cultural and Heritage Considerations. All sites are protected from impacts under the *Aboriginal Heritage Act 1972,* and the DIA should be contacted where there is a risk of an oil spill stranding.

### 5.8.3 Cleaning of Oiled Foreshores

Differing foreshores support a range of activities. When oiled, they require distinctly separate clean-up methods. Any manpower made cleaning activity should be limited to support, and if possible, augment natural cleaning through prevailing weather and environmental activity in the area.

Where oil has been deposited on sandy beaches and cleaning is required, supervision is necessary to ensure that only oiled sand is removed; waste minimisation is essential in oil spill clearance operations to ensure the least impact on the environment and to minimise clean-up costs. Coarse sand beaches may absorb oil into sediments, while on hard-packed fine sand beaches oil will generally deposit itself on the surface with minimal or no penetration. The IC should make an assessment of the load-bearing capacity of the beach before allowing vehicle access.

Removal of oiled material can be achieved by careful use of mechanical earthmoving equipment supported by teams of personnel equipped with shovels and rakes. The polluted material should be taken to the closest disposal sites as soon as possible. Heavy-duty plastic bags may be used for temporary storage for a limited time only (e.g. three weeks). If left for too long, the oil will ultimately degrade the polythene material and re-deposit the contents to the beach surface. Care must be taken to ensure earth moving equipment does not force oil into the substrate.

On beaches having relatively low wave energy, hoses and pumps to provide low-pressure saltwater flushing is a useful technique. The oil being flushed into booms deployed a metre or so offshore from the low water level and removed using suitable skimmers.

Cleaned beaches should be subsequently monitored to ensure that oil does not re-appear after being buried with successive tidal action or changes in beach structure.

### 5.9 Oiled Wildlife Response

Oiled Wildlife Response (OWR) under the State Hazard Plan - MEE is the responsibility of the WA Department of Biodiversity, Conservation and Attractions (DBCA). Copies of the OWRP's are available in the Planning and Operations folders and at the links below.

The WA OWR Plan is available at;

https://www.dbca.wa.gov.au/wildlife-and-ecosystems/marine/marine-wildlife-response-oiled-wildlife-response

### 5.10 Waste Management

Marine pollution incidents generate large volumes of waste. Oil in the water increases its volume by between 3 and 5 times. Oil stranding ashore can increase in volume by between 10 and 50 times depending on the type of shoreline and the presence of debris.

The key principle for waste management is waste minimisation. In the event that a shoreline will be impacted, the following should occur:

- Shoreline pre-assessment
- Shoreline pre-clean

This will reduce the amount of waste, facilitate planning for shoreline clean-up and assist with cost recovery.

#### 5.10.1 Onsite Temporary Storage

Marine response units will require assistance in the establishment of storage facilities on jetties or other locations.

Shoreline Units will require assistance in the establishment of temporary waste storage areas behind beaches being cleaned.

#### 5.10.2 Temporary Storage Site

Temporary waste handling bases should be established. The treatment and disposal of waste material must be managed if it is not to inhibit clean-up activities or pose any threat to the environment. To undertake the task of managing waste, the IC may appoint a Waste Management Coordinator (WMC) to develop a local Waste Management Sub-Plan and to direct the Waste Management Unit. This section will usually be coordinated by a local DWER officer.

### 5.11 Ongoing Response

Where the size and complexity of the incident requires a response effort with a duration greater than a week, careful consideration to fatigue management and business continuity will be required. Once the initial first strike has been conducted, careful considerations of the use and allocation of personnel should be made. Where the response will continue for more than a week the IMT should be divided into 2. With the first IMT group working for 5 to 7 days before handing it over to the second group. Any work routine shall comply with Pilbara Ports Fitness for Duty Policy – Fatigue Management Policy.

In order for Pilbara Ports to maintain control of the response effort and to ensure that Pilbara Ports's corporate objectives and business continuity are maintained, a Pilbara Ports staff member should be used for the role of IC and each functional head. The use of Port Hedland based Pilbara Ports staff should be considered to augment the Pilbara Ports West Capability.

For an ongoing response, State Response Team (SRT) and National Response Team (NRT) resources should be mobilised. The SRT and NRT can provide both field team leaders and IMT resources.

For prolonged responses, the appointment of a Deputy IC should be considered; the Deputy IC will be able to assist the IC by ensuring the smooth and efficient running of the IMT and ensuring all time-based outcomes are achieved whilst the IC coordinates external engagement.

## 6. ACTIVATION AND DEPLOYMENT OF RESOURCES

The IC must mobilise sufficient equipment and personnel resources to manage the incident response.

- All labour mobilised needs to be carefully tracked
- Each person participating in the response needs to register using a Labour Registration Form (235) and be provided with an induction outlining
- Administrative requirement
- Pilbara Ports Safety and Incident reporting requirements
- Outline of the response
- Pilbara Ports point of contact
- Accommodation and meal arrangements

The Executive Advisory Group (EAG), through the EAG Co-Ordinator (Co-ordinator, OSRC), will assist in the initial location and mobilisation of resources, including the State Response Team (SRT).

The Australian Maritime Safety Authority, Environment Protection Response (AMSA, EPR) can also assist in the provision of National Plan equipment and National Response Team (NRT) personnel. This should be co-ordinated through the EAG Co-Ordinator

### 6.1 Safety and Hazard Management

The protection of people from harm is the highest response priority. All response activities must be undertaken safely, in compliance with Pilbara Ports standard operating procedures, and with consideration for the risks outlined below.

All personnel must comply with:

- Pilbara Ports Occupational Safety and Health Policy
- Pilbara Ports Fitness for Duty – Drug and Alcohol Policy
- Pilbara Ports Fitness for Duty Policy – Fatigue Management Policy
- Pilbara Ports Hazard Management Procedure
- Pilbara Ports PPE Procedure
- Pilbara Ports Incident Management Policy

Oil Spill response actions have inherent risks/ hazards associated with them due to the toxicity and nature of the oil, the use of machinery, the weather, and presence of wildlife. The Pilbara Ports Hazard Management Procedure requires that the hazards associated with each task are identified and documented and that controls are implemented to reduce the risk to as low as reasonably practicable. Pilbara Ports has developed a number of Standard Work Instructions (SWI) for deployment of response equipment and activities:

Each team member is required to review the relevant SWI. They must also complete an individual Take 5 risk assessment to record any hazards and controls

not reflected in the SWI. For any task where an SWI has not been developed, a Job Hazard Analysis (JHA) is to be completed by the team. Where the circumstances change during the response, a new Take 5 shall be conducted, and the JHA shall be reviewed in accordance with the Hazard Management Procedure. During any marine pollution response, all PPE controls stated in the risk assessment shall be worn by response personnel.

Crude oil and petroleum products are complex chemical mixtures containing aromatic hydrocarbon solvents (such as benzene) and or hydrogen sulphide. Careful analysis of the oil shall be undertaken to determine the risk to responders, with consideration for how responders may become exposed to hazardous products, such as through:

- Effects of vapours
- Inhalation
- Skin Contact and ingestion

Additional risks may exist in the following circumstances:

- During the initial weathering stages, when oil can be particularly toxic as the light ends evaporate
- Under wharves and jetties, where the atmosphere may allow toxic gasses to build up or oxygen to be displaced

Other risks specific to each product are outlined in the relevant Safety Data Sheet (SDS). In the event the SDS is not readily available from the vessel, a generic SDS for bunker oil can be quickly accessed via Chemalert either via intranet

Please refer to the SDS to establish appropriate controls.

OSCA, degreasers, and detergents used to clean equipment present different hazards. Refer to the relevant SDS for appropriate handling precautions.

### 6.1.1 Other hazards typically associated with oil spill response include:

- Toxicity of the oil or OSCA
- Uneven or slippery surfaces (potential for slips and falls)
- Wildlife and plant life (potential for physical injury, inappropriate handling causing harm)
- Machinery and equipment (potential for vehicle collisions, burns, crush injuries, being struck by mobile equipment)
- Working over or near water (potential for drowning)
- Hazardous substances (potential for ingestion or dermal reaction)
- Heavy, awkward or slippery equipment (potential for manual handling injuries)
- Extreme weather conditions inherent in the Pilbara Region (potential for hypothermia, heat exhaustion, heat stroke or sun burn)

Personnel should be mindful that gloves and other PPE become extremely slippery when oiled, increasing the time required to complete simple tasks. Shade is to be erected close to the work site, and water made available for all responders.

In case of emergency, personnel shall need to contact the VTS on 9159 6556 or VHF 11 (Dampier) / 14 (Ashburton), in accordance with the relevant Pilbara Ports Port Emergency Response Procedures.

All hazards and other incidents, including injuries, property damage, and near misses must be reported to the relevant team leader immediately and addressed in accordance with the Pilbara Ports Incident Management Procedure.

### 6.2 Mobilisation of Additional Resources

The activation of additional resources is through the Jurisdictional Authority with initial requests to be made via the MEER Duty Officer through the 24 hour reporting number (08) 9480 9924. The MEER Duty Officer will respond to all resource requests as per the DoT Mobilisation of Oil Pollution Response Personnel and DoT MOP Equipment Mobilisation procedures available to MEER via the DoT Intranet. The AMSA pollution duty officer can contact the Joint Rescue Coordination Centre **(JRCC) on 1800 641 792.**

## 7. RESPONSE TERMINATION

### 7.1 Responsibility for Terminating the Response

As the response progresses a determination on the end point will be required as per below:

Level 1 – IC in consultation with the advisory group

Level 2 and 3 – As determined by the SMPC

For guidance refer AMSA Guidance 'RESPONSE, ASSESSMENT AND TERMINATION OF CLEANING FOR OIL CONTAMINATED FORESHORES-NP-GUI-025' https://www.amsa.gov.au/sites/default/files/np-gui-025-response-assessment-and-termination-of-cleaning-for-oil-contaminated-foreshores.pdf

### 7.2 Investigation and Reporting

An investigation into the incident may be conducted by the Australian Transport Safety Bureau (ATSB), AMSA or the WA Department of Transport (DOT) Marine Safety Investigation Unit (MSIU). These organisations will perform the role of the investigation function. The IMT is to provide support and assistance as required. Further information on the reporting of Marine incidents can b found in the Port of Dampier Handbook

### 7.3 Cost Recovery

All cost associated with the response must be tracked. This is vitally important for the recovery of costs from the polluter. The finance functional area is responsible for the tracking of costs associated with the response effort. All responders are responsible for recording and advising finance of any cost associated with the response, this would include maintaining records of labour registration and responder time sheets.

For an ongoing response effort, a P & I Club representative should be included in the authorisation of expenditure to ensure minimal delays in cost recovery and that all costs can be recovered. The P & I Club will only cover cost incurred in an efficient and effective response.

## ANNEX 1: OIL SPILL RESPONSE EQUIPMENT

A list of dampier Oil Spill Equipment can be accessed via the Document Management System

The AMSA, National Plan equipment is not intended to be used in a Level 1 event; it is intended for Level 2 and 3 events. The AMSA, National Plan National Plan Stockpile of equipment is located at the Karratha Industrial site. This equipment is heavy, and it is unlikely to be deployed without assistance from NRT or SRT members.

**WHILE AMS HAVE A CONSIDERABLE STOCKPILE OF EQUIPMENT AMS ARE NOT A PORT FACILITY OPERATOR AND THEREFORE HAVE NO OBLIGATIONS UNDER STATE HAZARD PLAN – MARITIME ENVIRONMENTAL EMERGENCIES**

## ANNEX 2: MARINE OIL POLLUTION COMMITTEE CONTACT LIST

A Contact list can be accessed via the Document Management System

## ANNEX 3: ESTABLISHING ICC AND IMT

| PROCEDURE Pilbara Ports - A | | ESTABLISHING THE INCIDENT CONTROL CENTRE (ICC) | | A |
|---|---|---|---|---|
| Task | Action | | Location | Status |
| 1.0 | Obtain and/or assign ICC equipment. | | | |
| 1.1 | Communications. | | | |
| | a | Telephone Lines | | |
| | b | Radio frequency (as required). | | |
| 1.2 | Information Display. | | | |
| | a | Set of laminated Status Boards. | | |
| | b | Set of forms (minimum of 5 sets.) | | |
| | c | Regional Maps; | | |
| | | i Nautical charts. | | |
| | | ii Topographic maps (2 sets of 1:50,000). | | |
| | d | Clear plastic sheets, to cover maps (4m x 1m). | | |
| | e | Overhead projector (in nominated briefing room) | | |
| | f | Whiteboards (1 or 2) | | |
| 1.3 | Stationary. | | | |
| | a | Whiteboard markers (5-10 mixed colours). | | |
| | b | Ballpoint pens (10 black, 10 red). | | |
| | c | Pencils (20 each of HB, B, 2B). | | |
| | d | Rulers (5 x 30cm and 2 x 100cm). | | |
| | e | Adhesive tape (5 rolls). | | |
| | f | Paper clips. | | |
| | g | Staplers (5) and staples. | | |
| | h | Manila folders (20). | | |
| | i | A4 white paper (2 packs) | | |
| | j | A4 Plastic transparent sleeves (1 box, 20/25) | | |
| | k | Bulldog clips (25 mixed sizes). | | |
| | l | A4 spring clip folders/binders (10). | | |
| | m | Transparency sheets (20.) | | |
| 1.4 | Computers (see Communications line 8 also). | | | |
| | a | Nominates 2 computers for admin work, if required. | | |

| | | | | |
|---|---|---|---|---|
| | b | Printers (at least 2). | | |
| 1.5 | Administration / Document Storage. | | | |
| | a | Photocopier. | | |
| | b | Document (“in” and “out”) trays (6 – 8). | | |
| | c | Hanging file trays and file folders. | | |
| 1.6 | Copy(s) of the Pilbara Ports OSCP and Appendices | | | |
| 1.7 | Tables and chairs. | | | |
| 2.0 | ICC Set up | | | |
| 2.1 | Order and obtain any items needed (lines 1.1-1.5) | | | |
| 2.2 | Clean white-boards. | | | |
| 2.3 | Check connections of telephones, faxes. | | | |
| 2.4 | Place OSCPs on the table for references. | | | |
| 2.5 | Advise switchboard to direct incoming calls to the ICC. | | | |
| 2.6 | Display appropriate Maps, Status Boards, Charts (Cover with plastic if not laminated) | | | |

**END OF PROCEDURE A**

| PROCEDURE Pilbara Ports - B | | PLANNING MEETINGS SCHEDULE & PREPARATION OF THE INCIDENT ACTION PLAN | | B |
|---|---|---|---|---|
| Phase / Task | | Action | Responsibility | Check |
| Meeting | 1 | | | |

| | | | | | |
|---|---|---|---|---|---|
| | | Briefing on situation. | | | |
| | | a | Current situation. | | |
| | | | i | Spill location | |
| | | | ii | Spill size | |
| | | | iii | Control / Combat Agencies. | |
| | | | iv | Response Tier / resources mobilised. | |
| | | b | Predicted situation: | | |
| | | | i | Trajectory. | |
| | | | ii | Resources at risk / potential effects. | |
| | 2 | State Aim (or Policy) of Response. | | | |
| | 3 | Develop and rank response objectives, based on protection priorities. | | | |
| | 4 | Develop Strategies for each Objectives. | | | |
| | 5 | Develop Tactics for each Strategy. | | | |
| | 6 | Identify and obtain any permits required for strategies (e.g. dispersant use). | | | |
| | 7 | Document Aim, Objectives and Strategies i.e. prepare Draft Incident Action Plan. | | | |
| | 8 | Prepare/Review Sub-Plans: | | | |
| | | a | Communications Sub-Plan. | | |
| | | b | OH&S Sub-Plan. | | |
| | | c | Wildlife Sub-Plan. | | |
| | | d | Media Sub-Plan. | | |
| | 9 | Determine need for and location of, Advanced Operations Centres or Staging Areas. | | | |
| | 10 | Document Incident Action Plan (IAP) | | | |
| | 11 | Prepare revised lists of resource Needs. | | | |
| | 12 | Approve IAP | | | |

## ANNEX 4: CLASSIFICATION OF OILS

Oils are generally classified by the American Petroleum Institute gravity scale in to groups. The Oil Groups and Properties Table outline the grouping of oils based on specific gravity. Oils within each group will generally have similar viscosity, spreading rates and pour points. Oils within each group will have a similar fate in the marine environment. The Table below outlines the general fate of the oil in the marine environment.

| OIL GROUPS AND PROPERTIES | | | | | |
|---|---|---|---|---|---|
| Group | Specific Gravity | API Gravity | Viscosity (cSt at 15°C) | % Boiling < 200°C | % Boiling > 370°C |
| I | < 0.8 | >45 | 0.5 – 2/0 | 50 - 100 | 0 |
| II | 0.8 – 0.85 | 35 – 45 | 4 – solid | 10 – 48 | 0 – 40 |
| III | 0.85 – 0.95 | 17.5 – 35 | 8 – solid | 14 – 34 | 28 – 60 |
| IV | 0.95 – 1.0 | < 17.5 | 1500 - solid | 3 - 34 | 33 - 92 |

| FATE OF OILS IN THE MARINE ENVIRONMENT | | | | |
|---|---|---|---|---|
| Weathering Process | Group I | Group II | Group III | Group IV |
| Spreading | Rapid | Rapid | Rapid | None |
| Evaporation | High | Moderate | Moderate | None |
| Emulsification | Little or no tendency | Low to Moderate | Moderate to High | High |
| Physical dispersion | Rapid | Moderate to Rapid | Moderate to Slow | Slow |
| Dissolution | Little | Low | Little | Little or none |
| Photo – oxidation | Not significant | Not significant | Not significant | Not significant |
| Sedimentation | Very low probability | Very low probability | Low Probability | Low probability unless in contact with sediment |

More information on the properties and weathering of oil can be found in the ITOPF Technical Information Paper 2 Fate of Marine Oil Spills and The Global Oil and Gas Industry Association for Environmental and Social Issues (IPIECA) Finding 19 Guidelines on Oil Characterisation to Inform Spill Response Decisions.

### Diesel (MGO, NATO F76 or G10)

Diesel is a refined product, light petroleum distillate which is a Group II oil with a relatively low specific gravity and low pour point (-17 to -30°C). Diesel is a light persistent oil which

will weather and evaporate rapidly. However when present in large quantities, diesel will present a significant risk to the marine environment.

Diesel, once in the water will spread rapidly with potentially small quantities covering large areas. In summer conditions the oil will evaporate rapidly and with wave action and mixing the slick will rapidly weather and dissipate. In summer conditions, potentially up to 80% of the volume will be lost through evaporation in the first hour.

In winter conditions, diesel will be more persistent. The oil will rapidly spread but will not lose as much volume through evaporation. Wave action and mixing will still allow for weathering and dissipation of the oil. Diesel will not emulsify in climatic conditions experienced in Dampier.

**Intermediate Fuel Oil (IFO) and Heavy Fuel Oils (HFO)**

IFO and HFO are residual refined product with a higher specific density and high viscosity. IFO and HFO are of variable composition with a high specific gravity. IFO 180 is a Group III oil and IFO 360 is a Group IV oil. Both are highly persistent.

Once in the water IFO and HFO will emulsify with a water content of up to 80 percent. The light ends or volatile aromatic components will evaporate leaving heavier residuals. This means the specific gravity will increase with time. IFO and HFO will not readily spread and can be expected to fragment and form patches. IFO and HFO will show little tendency to disperse or dissolve.

As IFO emulsifies it will be less reactive to Oil Spill Control Agents (OSCA). HFO's viscosity is too high to be treatable with OSCA.

**Light Petroleum Products (ULP, Jet A1 or Avgas)**

Other light petroleum products such as ULP and Avgas are extremely volatile. These oils will spread rapidly with high physical dispersions and evaporation. These products will weather rapidly and dissipate unless present in large volumes. Careful assessment of the safety aspects is required when responding to these light petroleum products as they are potentially highly flammable and potentially very toxic.

**Condensate**

Natural-gas condensate is a low-density mixture of hydrocarbon liquids that are present as gaseous components in the raw natural gas produced from many natural gas fields.

Some gas species within the raw natural gas will condense to a liquid state if the temperature is reduced to below the hydrocarbon dew point temperature at a set pressure.

There are many condensate sources worldwide and each has its own unique gas condensate composition. However, in general, gas condensate has a specific gravity ranging from 0.5 to 0.8, and is composed of hydrocarbons such as propane, butane, pentane, hexane, etc. Natural gas compounds with more carbon atoms (e.g. pentane, or blends of butane, pentane and other hydrocarbons with additional carbon atoms) exist as liquids at ambient temperatures. Additionally, condensate may contain additional impurities such as: Hydrogen Sulphide, Cyclohexane, Naphthenes, Aromatics (benzene, toluene, xylenes, and ethylbenzene)

**Safety Data Sheet for North West Shelf Condensate**

Pilbara Ports Objective records system number A441719

A leak or rupture of a Woodside pipeline line may result in the release of substantial quantities of gas and condensate. Stemming the leak in the line may take some time.

Although condensate is highly toxic to marine life, the major risk is fire or explosion.

All precautions against potential ignition should be taken.

All non-essential personnel should be cleared from the area.

A 3 nautical mile exclusion zone should be established for vessels

A no fly zone established for aircraft.

The IC should consider declaring a Level 3 event.

Oil spill booms should not be used to contain the spill, the most effective option is to allow the product to spread rapidly. This will assist with evaporation, natural dispersion and dissolution.

The ambient temperatures and prevailing winds in the Pilbara will assist with rapid spreading rates and volume loss of condensate see the Tables at the end of this document evaporation; approximately 70% of the volume should evaporate within less than an hour.

**Spills of other substances**

If the substance spilled is not known, or the spill involves both oil and another chemical, the IC must ensure that the HAZMAT HMA (DFES – Department of Fire and Emergency Services) is notified.

In such cases, it is likely that the HAZMAT Emergency Advisory Team (HEAT) will be convened to assist in the management of the response *(ref. Section 8.4, and WestPlan - HAZMAT Section 5.1.4).*

## ANNEX 5: PILBARA PORTS TRAINING

Pilbara Ports has a strong commitment to maintaining a high level of response preparedness. In order to ensure that Pilbara Ports meets its obligations for preparedness and marine pollution emergency response, Pilbara Ports - has a multi-faceted approach to preparedness that encompasses;

Planning

Equipment

Training

Annual exercise

Continuous improvement

In order to meet Pilbara Ports preparedness, the Executive has approved the following training for Port of Dampier based staff;

Senior Operations Managers

- AIIMS Level 2
- Media training
- Designated Incident Controllers
- AMSA National Plan Incident Control Course
- Media training

Designated Functional Heads

- National Plan training for nominated functional area
- National Plan IMT Course
- IMT Staff either
- AMSA National Plan IMT
- Level 1 Incident Management Course

OSIRT

- Attend OSIRT training 4 times a year
- DOT Oiled Shoreline Course
- DOT Basic Operators Course
- All Staff
- Oil Spill familiarisation training
- OSIRT Training on an opportunity basis
- Operations Staff
- National Plan Online Introduction to Marine Pollution

## APPENDEX A – PORT OF DAMPIER AND OTHER WEST PORTS FIRST STRIKE PLANS (CONFIDENTIAL AVAILABLE INTERNALLY ONLY)

## APPENDEX B – FORMS AND CHECKLIST

**These Checklists are available from Objective: fA17234**

| | INDEX | |
|---|---|---|
| NUMBER | CHECKLIST | DATE |
| 212 | INCIDENT ACTION PLAN Pilbara Ports | |
| 213 | ARIEL OBSERVATION REPORT Pilbara Ports | |
| 214 | RESPONDER CONTACT LIST Pilbara Ports | |
| 215 | ENVIRONMENTAL SITREP Pilbara Ports | |
| 216 | EQUIPMENT PERSONNEL DEPLOYMENT /SITREP | |
| 217 | EQUIPMENT TRACKING LOG Pilbara Ports | |
| 218 | GENERAL WORK ORDER FORM Pilbara Ports | |
| 219 | IMT - KEY ROLE ALLOCATION AND CONTACTS | |
| 220 | PERSONAL LOG OR SECTION UNIT LOG Pilbara Ports | |
| 221 | PERSONNEL ASSIGNMENT FORM Pilbara Ports | |
| 222 | PERSONNEL REQUISITION - ALLOCATION Pilbara Ports | |
| 224 | RESPONDER TIME SHEET CURRENT Pilbara Ports | |
| 225 | IMT RESPOSNSE PERONNEL Pilbara Ports | |
| 226 | SHORELINE OILING ASSESSMENT FORM Pilbara Ports | |
| 227 | SHORELINE STATUS TRACKING FORM Pilbara Ports | |
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| 229 | WILDLIFE SITREP Pilbara Ports | |
| 230 | WORKPLACE INCIDENT REPORT Pilbara Ports | |
| 231 | MEDICAL RESOURCES Pilbara Ports | |
| 232 | OPERATIONS AIR OPS DIVISIONS ASSIGNMENT | |
| 233 | OPERATIONS MARINE DIVISIONS ASSSGNMENT | |
| 234 | RADIO COMMUNICATIONS ALLOCATION | |

| | | |
|---|---|---|
| 235 | LABOUR REGISTRATION FORM Pilbara Ports | |
| 236 | MESSAGE DISTRIBUTION FORM Pilbara Ports | |
| 237 | MESSAGE FROM Pilbara Ports | |
| 238 | PERSONNEL DEPLOYEMENT Pilbara Ports | |
| 239 | STATUS UPDATE - ENVIRONMENTAL RESOURCES AT RISK | |
| 240 | STATUS UPDATE - EQUIPMENT DEPLOYMENT | |
| 241 | STATUS UPDATE - MEDIA / PUBLIC BULLETINS | |
| 242 | STATUS UPDATE - MEDIA SCHEDULE Pilbara Ports | |
| 243 | STATUS UPDATE - MEETING SCHEDULE | |
| 244 | STATUS UPDATE - TIDES SUNRISE SUNSET | |
| 245 | STATUS UPDATE WEATHER Pilbara Ports | |
| 246 | STATUS UPDATE - WILDLIFE STATUS Pilbara Ports | |
| 247 | STATUS UPDATE - INCIDENT DETAILS Pilbara Ports | |
| 248 | OIL SPILL RESPONSE AIIMS STRUCTURE | |
| 249 | DOT POLREP | |
| 250 | DOT SITREP | |

## 8. PROCESS OWNER

The Harbour Master is responsible for this External Document.