

# Oil Spill Contingency Plan 2015 Department of Transport



# Department of Transport: Oil Spill Contingency Plan 2015

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# **Version control**

Version No.	Date	Prepared by	Revision or issue description	Issued to
Draft	November 2014		Re-write and rerelease of DoT OSCP to reflect WestPlan – MOP 2014 and National Plan 2014	
1	January 2015		Updated to reflect outcomes from State port exercise	

## **Amendment record**

This guidelines document is reviewed to ensure its continuing relevance to the systems and process that it describes. A record of contextual revisions is listed in the following table.

Page No.	Context	Revision	Date

#### IMPORTANT NOTE: THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE WESTERN AUSTRALIAN STATE EMERGENCY MANAGEMENT PLAN FOR MARINE OIL POLLUTION (WESTPLAN-MOP)

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# Part 1 Introduction

## 1.1 Aim and Objectives

#### 1.1.1 Aim

The aim of the Department of Transport (DoT) Oil Spill Contingency Plan (OSCP) is to outline the procedures and arrangements for responding to and recovering from Marine Oil Pollution (MOP) emergencies in State waters in accordance with WestPlan - MOP.

#### 1.1.2 Objectives

The objectives of DoT OSCP are to:

- Define the roles and responsibilities for responding to and recovering from MOP emergencies
- Apply the Australasian Inter-Service Incident Management System (AIIMS) structure for a coordinated multi agency response to a MOP emergency
- Outline the procedures for mobilising local, State and National resources to support a MOP emergency
- Integrate DoT OSCP with:
  - o WestPlan MOP
  - Supporting sub plans
  - Port, Port Operator, Port Facility Operator OSCPs and Petroleum titleholder Oil Pollution Emergency Plans (OPEPs)
- Provide guidance for managing effective response and recovery to MOP emergencies

#### 1.2 Scope

The DoT OSCP applies to all actual or impending spills of oil in State waters, as defined in WestPlan – MOP 1.2, unless otherwise stipulated within a current OSCP/OPEP maintained by a relevant Control Agency within their respective area of responsibility.

## 1.3 Spill Risk

WestPlan - MOP identifies four main areas of Level 2/3 MOP emergency risks in State waters (1.3.2). The below tables give an indication of possible spill scenarios (Table 1.1), maximum credible spill scenarios (Table 1.2) and credible spill volumes based on tanker size (Table 1.3). These tables provide an indication of possible spill risk for State waters.

#### Table 1.1 Possible Spill Scenarios

Incident Type	General Shipping	Ports & Port Facilities	Oil Loading & Offloading Facilities	Offshore Exploration	Offshore Production
Vessel -Collision	Yes	Yes	Yes	Yes	Yes
Vessel -Grounding	Yes	Yes	Yes	Yes	Yes
Vessel – Transfer/Bunkering	Yes	Yes	Dep	Yes	Yes
Vessel – Tanker Loading/ Offloading	N/A	N/A	Yes	N/A	Dep
Pipeline Failure	N/A	N/A	Dep	N/A	Yes
Structural Failure	Yes	N/A	Yes	Yes	Yes
Surface Blowout	N/A	N/A	N/A	Yes	Yes
Subsurface Blowout	N/A	N/A	N/A	Yes	Yes

Yes - Possible incident scenario for the facility or operation.

Dep - Possible incident scenario dependant on the nature of the facility or operation.

N/A - Not usually relevant to the facility or operation.

Source: AMSA 2013 "Technical guideline for the preparation of marine pollution contingency plans for marine and coastal facilitiesr"

#### Table 1.2 Maximum Credible Spill Scenarios

Scenario			Pagia of Valuma Calculation
Source	Incident		Basis of Volume Calculation
		Major <sup>2</sup>	Volume of largest 2 outside tank + one adjacent inner tank.
	Collision	Non-major <sup>3</sup>	100% of volume of largest wing tank (i.e. not double hulled) or 50% of tank protected by double hull.
Oil Tanker <sup>1</sup>	Grounding	Major⁴	Volume of largest two consecutive potentially impacted tanks
	Grounding	Non-major⁵	100% of volume of largest wing tank (i.e. not double hulled) or 50% of tank protected by double hull.
Other	Collision		Volume of largest fuel tank
Vessel <sup>7</sup>	Crounding	Major <sup>6</sup>	Total fuel volume + cargo
VESSEI	Grounding	Non-major <sup>8</sup>	Total fuel of 1 tank
	Blowout		Predicted flow rates per day x days estimated to get a relief
MODU/			rig on site + 20 days to cap well <sup>9</sup>
Production	Refuelling (continuous supervision)		Transfer rate x 15 minutes of flow <sup>10</sup>
Fialionn	Refuelling (intermittent supervision)		Transfer rate x 2 hours of flow <sup>10</sup>
	Rupture		100% of maximum flow or 1 hour + volume of affected pipeline section <sup>11</sup>
Onshore Pipeline	Leak (above LoD) <sup>12</sup>		2% of maximum daily flow x 4 days or time taken to reach and repair leak <sup>13</sup>
	Leak (below LoD) <sup>12</sup>		2% of maximum daily flow x 90 days or time taken to reach and repair leak <sup>13</sup>
Offshore	Rupture		Maximum daily flow rate x 1 hour + volume of oil in the pipeline <sup>14</sup>
Pipeline	Leak		2% of maximum daily flow x 1 day + time taken to clear/flush the pipeline with seawater <sup>15</sup>

Note: To be used for planning purposes if actual volumes cannot be, or have not been, calculated.

1. See Table 1.3.

<sup>2.</sup> Assumes penetration of external and internal hull at the water line and based on the loss of contents of largest potentially impacted cargo tank.

<sup>3.</sup> Based on the loss of contents of largest outside tank (including fuel tanks). In the case of tanks protected by double hull a maximum potential loss of 50% of the contents is assumed.

- 4. Based on the total loss of the vessel.
- 5. Based on vessel with bottom tanks. If no bottom tanks are present then there is no anticipated volume loss.
- If a supply vessel carrying fuel as cargo, treat as a tanker.
   Based on rupture to all impacted tanks and/or loss of vessel.
- Based on damage to one impacted tank. Note: If tanks cannot be holed, this scenario will result in no loss.
- Based on damage to one impacted tank. Note: It tanks cannot be noted, this scenario will result in no loss.
   Estimated days to get a relief rig onsite should be supported by a Blow-out Management Plan or other
- documentation. Alternative strategies for well control may be used but should be supported.
- 10. If spills can only be to deck then volume held by scuppers etc. may be deleted from the total provided that this volume will be recovered.
- 11. Based on presence of leak detection system, block valves and automatic shutdown systems. Note one hour shutdown time may be reduced if effectiveness of systems can be supported.
- 12. LOD = Level of Detection, as stipulated by pipeline automatic detection systems.
- 13. Times taken to reach and repair leak sites may be reduced if shorter times can be demonstrated.
- 14. Based on ability to detect major faults but absence of block valves.
- 15. Assumes daily over flights that will detect sheens.

Source: AMSA 2013 "Technical guideline for the preparation of marine pollution contingency plans for marine and coastal facilitiesr"

#### Table 1.3 Credible Spill Volumes (tonnes) based on tanker size

Typical Tonnage (deadweight)	Slight Grounding or Collision (1 wing tank)	Grounding with Rupture (2 wing tanks plus 1 centre tank)	Bunker Oil
30,000	700	3,000	1,350
50,000	1,100	5,000	2,300
70,000	3,000	12,500	5,200
100,000	5,500	21,000	7,000
200,000	10,500	45,000	8,300
240,000	15,000	60,000	12,000

Source: IPECA 1991 "A Guide to Contingency Planning for Oil Spills on Water"

#### **1.4 Related Documents**

DoT OSCP integrates with other plans including:

- WestPlan MOP 2015
- WestPlan Maritime Transport Emergencies (MTE) 2015
- National Plan for Maritime Environmental Emergencies 2014 (National Plan)
- WestPlan Hazardous Materials (HAZMAT)
- Port, Port Operator, Port Facility Operator and Petroleum titleholder OSCPs/OPEPs
- Australian Marine Oil Spill Plan (AMOSPlan)

DoT OSCP integrates with sub plans including:

- Public Information Unit and Media Sub-Plan (DoT OSCP Appendix G)
- Oiled Wildlife Response Plan (WestPlan MOP 4.9.3)
- OH & S Sub-Plan (DoT OSCP Appendix F)
- Waste management guidelines (DoT OSCP Appendix H)

#### 1.5 Responsibility for DoT OSCP

WestPlan - MOP defines Jurisdictional Authority and Control Agencies for MOP emergencies and outlines their respective responsibilities for Prevention, Preparation, Response and Recovery (PPRR). The Jurisdictional Authority for WestPlan - MOP has the responsibility for the formulation, review and exercising of the DoT OSCP.

Table 1.2 prescribes the responsibilities for response to MOP emergencies. (WestPlan - MOP table 4.1)

Leastion		Jurisdictional	Control Agency (*)		
Location	Spill Source	Authority	Level 1	Level 2/3	
Commonwealth	Offshore Petroleum Activity	NOPSEMA	Petroleum Titleholder	Petroleum Titleholder	
waters	Vessels	AMSA	AMSA	AMSA	
State waters	Offshore Petroleum Activity	DoT**	Petroleum Titleholder	Petroleum Titleholder	
	Vessels	DoT	DoT***	DoT	
Port Authority (PA)	Offshore Petroleum Activity	DoT	Petroleum Titleholder	Petroleum Titleholder	
waters	Vessels	DoT	PA***	PA/ DoT****	

 Table 1.4
 WA MOP Emergency Response Arrangements

For spills originating from land into State waters refer to WestPlan - MOP 1.2.1

(\*) The Control Agency remains true to the spill source. If a spill crosses over defined waters boundaries, the Control Agency will remain with the nominated Agency for the spill source, unless otherwise appointed through agreement with the Jurisdictional Authorities of both waters.

(\*\*)DMP are 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 Jurisdictional Authority for spills sourced from Offshore Petroleum Activities in State waters.

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

(\*\*\*\*) In the event of a Level 2/3 MOP emergency in PA waters, the role of Control Agency may fall with the PA or DoT and will be determined by the Jurisdictional Authority in consultation with the PA. The Control Agency will be the agency deemed most capable of performing the role of Control Agency.

The State Marine Pollution Controller (SMPC) may confirm in writing the Control Agency during a MOP emergency.

In any MOP emergency, should a Control Agency be deemed by the SMPC being incapable of providing an adequate response, the Jurisdictional Authority may opt to assume the role of Control Agency.

#### **1.6 Response Agreements**

DoT has a number of response arrangements and agreements with Control Agencies and Support Agencies. DoT has a Memorandum of Agreement (MOA) with the WA Port Authorities, as defined in the *Port Authorities Act 1999*, to respond on behalf of the Jurisdictional Authority to MOP emergencies. The MOA is available in the DoT OSCP Appendix L

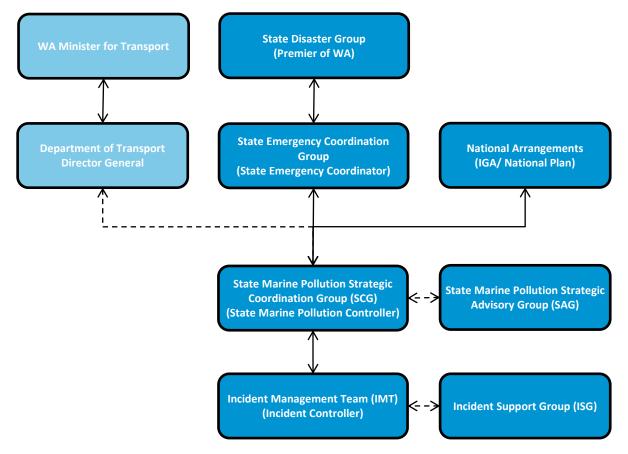
# Part 2 MOP Emergency Response Structure

## 2.1 Coordination Structure

The State Marine Oil Pollution Committee (SMOPC) supports the Jurisdictional Authority in administering WestPlan - MOP as outlined in WestPlan - MOP 1.6.1.

The arrangements for the coordination of the response to a MOP emergency are outlined in WestPlan - MOP 4.6 and are summarised in Figure 2.1 (WestPlan - MOP Figure 4.1)

Figure 2.1 Coordination Structure



## 2.2 Incident Management Team

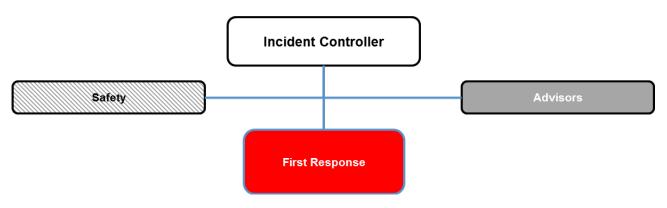
The Control Agency has responsibility to control response activities to a MOP emergency. This is achieved through the use of an Incident Command Structure (ICS). WestPlan - MOP 4.5 states the Australasian Inter-Service Incident Management System (AIIMS) is the preferred ICS for MOP emergencies unless otherwise approved by the Jurisdictional Authority.

AIIMS can be applied to the relevant level of response required for a MOP emergency. Level response is outlined in WestPlan - MOP 4.2.

#### 2.2.1 AIIMS Structure for a Level 1 MOP emergency

For level one (1) emergencies, a minimal AIIMS structure may be all that is required to control and respond to the emergency. A single officer may undertake many or all roles. Figure 2.2 is an example of a possible AIIMS structure for a level 1 MOP emergency.

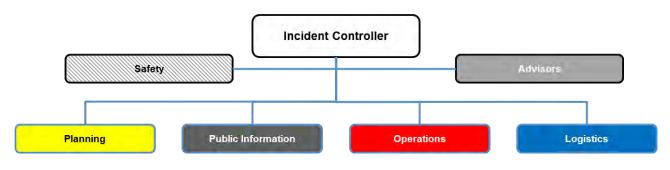




#### 2.2.2 AIIMS Structure for a Level 2 MOP emergency

For level two (2) emergencies, a more expanded AIIMS structure may be required to control and respond to the emergency. The Incident Controller (IC) may need to delegate roles to additional officers to maintain effective span of control. Figure 2.3 is an example of a possible AIIMS structure for a level 2 MOP emergency.





#### 2.2.3 AIIMS Structure for a Level 3 MOP emergency

For level three (3) emergencies, the additional units of the AIIMS structure will be required to control and respond to the emergency. Effective management of span of control will require additional delegation of unit roles to additional officers. The Jurisdictional Authority will utilise Figure 2.4 for a level 2/3 MOP emergency if undertaking the role of Control Agency. If required additional units can be elevated to core IMT functional units to assist with span of control. Figure 2.5 is an example of the fully expanded AIIMS 4 IMT.



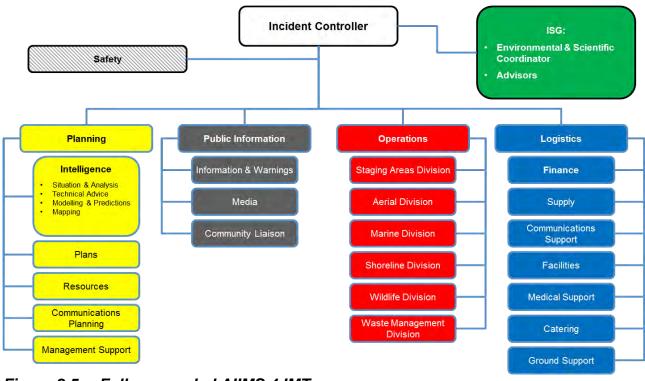
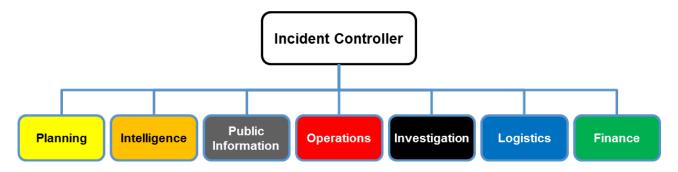


Figure 2.5 Fully expanded AIIMS 4 IMT



## 2.3 Support to the IMT

Figure 2.1 outlines the support groups to the IMT. WestPlan - MOP Appendix E outlines the Terms of Reference for the State Marine Pollution: Strategic Coordination Group (SCG) and the Strategic Advisory Group (SAG). The Incident Support Group (ISG) will be established as required by the IC for a MOP emergency and the membership will vary for each incident.

Figure 2.4 indicates the Environmental Scientific Coordinator (ESC) will function within the ISG. This is to ensure the IC has a direct communication link to the ESC to provide expert advice and assist in decision making.

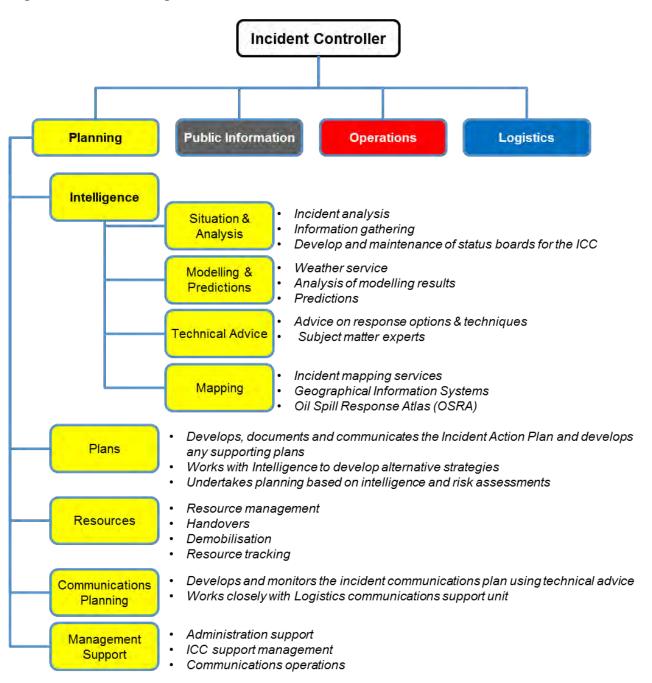
#### 2.3.1 Role of ESC

The definition of the ESC is available in WestPlan - MOP 4.6.7. Where the Jurisdictional Authority is the Control Agency, the primary role of the ESC is to provide timely 'whole of government' advice to the DoT IC on priorities for environmental protection and on the appropriateness of proposed response strategies. The advice is developed through

consultation with representatives of the Department of Parks and Wildlife (DPaW) and the Department of Fisheries (DoF) and with support from DoT Maritime Environmental Emergency Response Unit (MEER) Environmental Officer. Where the Jurisdictional Authority is not the Control Agency the ESC may provide the same support to the SMPC.

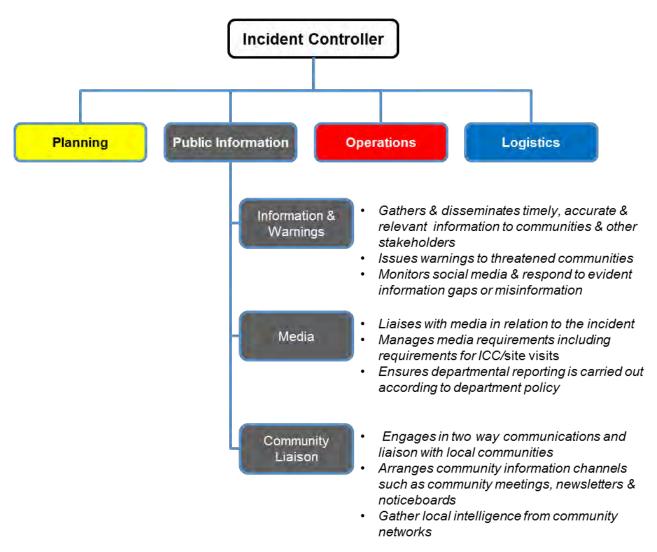
## 2.4 Functional Roles of the IMT

The roles and responsibilities of each unit within the IMT are defined in the AIIMS structure and assist in the coordinated multi agency response to minimise duplication and provide a clear command and control structure. Figures 2.6 to 2.9 provide an indication of the roles within an expanded AIIMS structure.

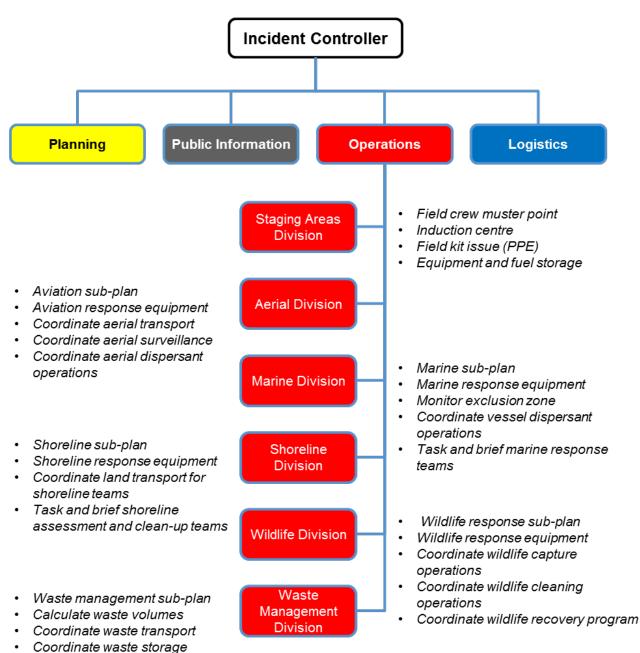


#### Figure 2.6 Planning Unit

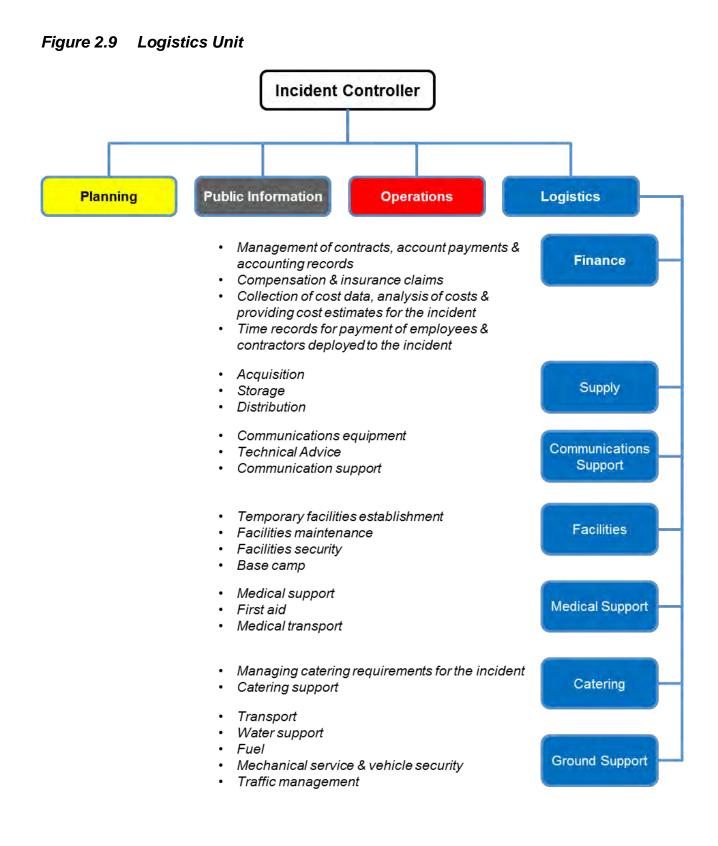








· Coordinate waste disposal



# Part 3 Initiating a MOP Emergency Response

## 3.1 Reporting and Activation

All actual or impending spills of oil in State waters are required to be reported to the Jurisdictional Authority as soon as reasonably practicable through the DoT MEER Duty Officer via the 24 hour reporting number (08) 9480 9924. The MEER Duty Officer may request the submission of a Pollution Report (POLREP) or Situation Report (SITREP) in addition to any notification received via the reporting number.

The Jurisdictional Authority is responsible for the notification of an actual or impending spill of oil in State waters to the Director General – Transport, the Minister for Transport and the State Emergency Coordinator as required.

If the role of Control Agency is to be filled by DoT, the SMPC will activate the DoT OSCP.

## 3.2 Initial Notification and Assessment

The MEER Duty Officer will assess all reports received as per DoT Marine Safety procedures and will activate notification as per the DoT On Call notification flow charts, all procedures and flow charts are available to MEER via the DoT Intranet.

The level of MOP emergency will be assessed by the Control Agency and will be confirmed in consultation with the Jurisdictional Authority as part of the Initial Notification and Assessment process.

Should the SMPC be notified, as per the DoT On Call notification flow charts, the role of Control Agency, level of emergency and appointment of the IC will be confirmed by the SMPC with the nominated Control Agency from Table 1.4.

Figure 3.1 outlines the process of notification and confirmation of assessment.

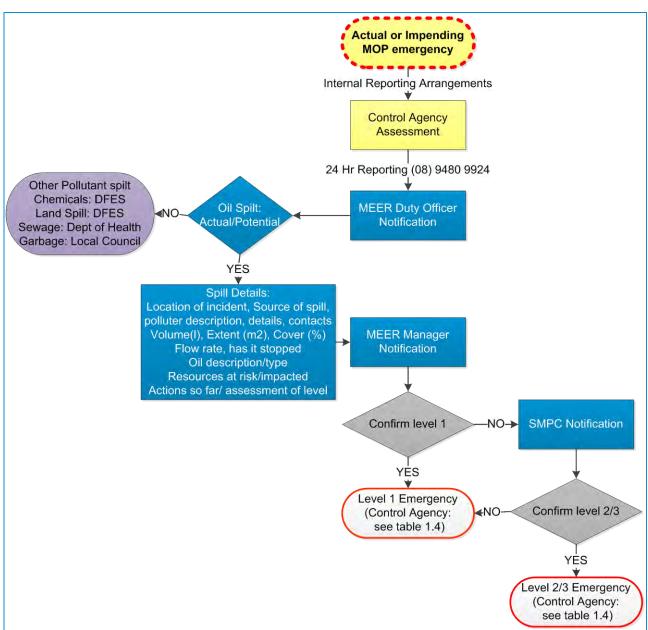


Figure 3.1 Initial Notification and Confirmation of Assessment

Note: If the Control Agency is not known the MEER Duty Officer will make the initial assessment and confirm with the MEER manager

## 3.3 Assessment of Level

Level response is outlined in WestPlan - MOP 4.2. To assist in determining the level of a MOP emergency, Table 3.1 provided 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. These criteria should be embedded within the relevant OSCP/OPEP or adapted to the specific emergency. Not all characteristics will apply in all cases, or to all MOP emergencies.

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 Days to weeks	Extended response 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

Table 3.1	Emergency Classification and Activation Triggers
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(Ref National Plan – Table 5 Guidance for emergency classification)

## 3.4 Appointment of Incident Controller

The Control Agency is responsible for appointing the IC as per WestPlan – MOP 4.6.3.

# Part 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 cooperation 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 Establishing the Incident Management

#### 4.2.1 Incident Management Team

The IC will initiate the establishment of the IMT structure commensurate to the MOP emergency level requirements. If DoT is the Control Agency, the DoT IC will establish an IMT as per Figure 2.4. Roles of the DoT IMT will initially be filled by the MEER unit and supplemented by the Incident Management Response Register (IMRR). The IC should ensure personnel fulfilling IMT roles have relevant training and accept the responsibility of the nominated roll.

#### 4.2.2 Incident Control Centre

The control of a MOP emergency will be located at an Incident Control Centre (ICC). The ICC may be a fixed location for the entirety of a MOP emergency or may be relocated to a more suitable location closer to the incident location as required. The initial DoT ICC is located in the Level 3 Conference Room Marine House, Fremantle. The DoT IC will nominate a trained ICC Manager to set up the ICC for operations. The checklist for the DoT ICC set up is located in DoT OSCP Appendix A and is posted on the wall of the DoT ICC.

#### 4.2.3 Site Control

The IC will need to ensure that all sites where personnel will be operating or any MOP emergency activities will take place have adequate site control. The level of control will be determined by the IMT. The DoT ICC will be a restricted access site and will rely on the

Marine House building security arrangements to maintain site control. The DoT IC will notify DoT building management of the activation of the ICC and will provide the switchboard with protocols for managing incoming calls. Personnel present in the Dot ICC will be controlled by the ICC manager and will be required to wear the appropriate tabard for the functional role they are undertaking.

#### 4.2.4 Initial IMT meeting

The initial meeting of the IMT will aim to establish a situational awareness; delegate roles; identify initial resources required and to provide the core IMT with sufficient information to begin undertaking their role functions. The DoT IC will initiate the IMT meeting with core IMT officers in the DoT ICC. Following the initial meeting each officer will be responsible for establishing their unit and undertaking their assigned role. Appendix A contains checklists for each IMT core position to assist in this task.

#### 4.2.5 Establishing the ISG

After the initial IMT meeting, the DoT IC may establish the ISG as required including the activation of the Environmental Scientific Coordinator and requesting via the Chair, any members of the SMOPC. The ISG is a dynamic group and will change in composition as required by the DoT IC. The DoT IC may request the ISG to attend meetings using the DoT ICC or other Marine House meeting rooms.

## 4.3 Notifications and Activations

The DoT OSCP will be applied for a MOP emergency where the role of Control Agency is undertaken by DoT. As per WestPlan - MOP 4.3, the Jurisdictional Authority is responsible for notifications and alerts however any requirement to activate sub plans under the responsibility of Support Agencies will be undertaken as required by the DoT IC via the ISG.

The Jurisdictional Authority will activate resources of the National Plan as required via the Rescue Coordination Centre Australia (RCC-Australia) duty officer in AMSA.

## 4.4 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 administrational support and will implement an approved records management process for the MOP emergency. DoT OSCP Appendix B contains forms and templates to be utilised by the IMT to assist with consistent information transfer and recordkeeping.

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. Personal logs are available in the DoT ICC and the core IMT will each be issued with a personal log at the initial IMT meeting.

# Part 5 Establishing Operations

## 5.1 Forward Operating Base

There will be only one ICC for any MOP emergency; however there may be an operational or logistical requirement to have additional centralised control areas. The IC can establish Forward Operating Bases (FOB) as required to assist in the control of response operations. The size and function of an FOB will be dependent on the MOP emergency and the available resources. Site control will need to be established for any FOB and may be similar to that of the ICC.

## 5.2 Control Zones

MOP emergency response utilises a three zone area control system to manage response activities.

#### 5.2.1 Hot Zone

The Hot Zone is the area/s of active operations and/or hazardous/contaminated environment. Hot Zone Areas include:

- Vessel operations and exclusion zones
- Dispersant spraying areas
- Contaminated shorelines and shoreline clean up areas
- Waste storage and disposal sites

Hot Zone areas have the access restricted to the highest level of the response. Entry to Hot Zones may be limited to:

- Personnel involved in Operations activities
- Personnel equipped with appropriate protective equipment
- Personnel who have undergone appropriate training and site induction

Hot Zones should be clearly signposted and may require security to manage access.

#### 5.2.2 Warm Zone

The Warm Zone is adjacent to the Hot Zone and is the area/s of supporting operations and a buffer to entry and exit from hazardous/contaminated environment. Warm Zone Areas include:

- Staging Areas
- Decontamination Areas
- Restricted zones buffering Hot Zone locations

Warm Zone Areas will have restricted access and entry may be limited to:

- Personnel involved in Operations activities
- Personnel providing support to Operations activities
- Professional services to support the response

#### 5.2.3 Cold Zone

The Cold Zone is all areas external to the Warm and Hot Zones. The Cold Zone may include some restricted access areas to assist in operations such as traffic management; deliveries and mobilisation of personnel. Cold Zone areas have the lowest level of security.

## 5.3 Staging Areas

Staging areas will be established to assist response operations. The size and function of Staging areas will be dependent on the operations they are supporting. The Operations officer will assign a Staging Areas Coordinator to oversee the set up and management of Staging Areas. Site control will need to be established by the Staging Areas Coordinator.

Staging Areas include resources and services to support response operations and include:

- Decontamination area
- Equipment stores
- Personnel mobilisation area
- Catering / cafeteria / rest areas
- First Aid
- Waste storage / Waste removal
- Ablutions

Considerations in establishing Staging Areas include:

- Accessibility for personnel and equipment
- Potential impacts to the environment
- Potential longevity of use
- Potential impact to local community and amenities
- Suitability for site security and control

## 5.4 Registration and Inductions

All personnel involved with a MOP emergency response will need to complete a registration process and appropriate inductions.

#### 5.4.1 Registration

The DoT registration form is located in DoT OSCP Appendix B and requests personal and medical information to be completed by every personnel involved in the MOP emergency response. Returning personnel on rotation must declare that all information contained on their initial registration form is current or complete a new registration form with updated information.

#### 5.4.2 Induction

All personnel involved with a MOP emergency will need to complete inductions relevant to the activities and functions they will perform. Inductions may include:

- The ICS for the MOP emergency
- Communication arrangements
- Important contact information
- Site control and procedures
- Operational conduct
- Occupational health and Safety requirements

In addition to standard inductions, additional inductions may be required for working in some environments including:

- Port Security
- Vessel
- Aircraft
- Culturally significant areas

#### 5.4.3 On Site training

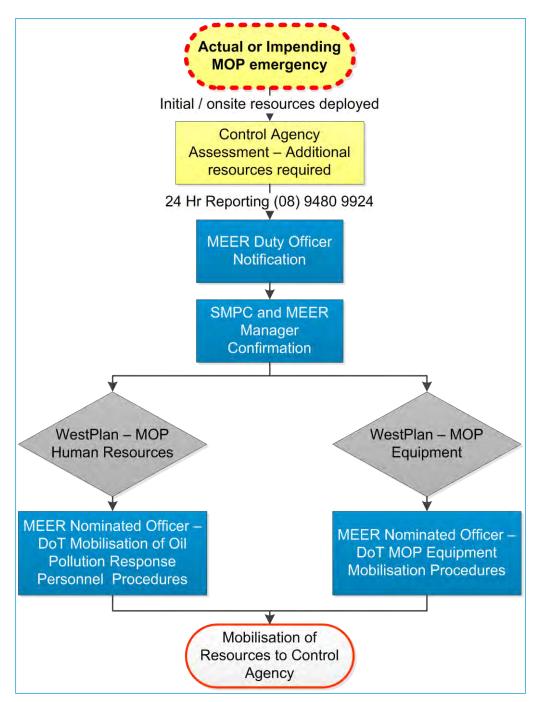
In addition to inductions, some MOP emergency activities may require personnel to undertake on-site training to supplement any prior knowledge and training. Personnel should not undertake any activity if they are uncomfortable with the level of experience and knowledge they have.

## 5.5 Mobilisation of Resources

WestPlan - MOP 3.3 identifies the resources available for a MOP emergency. The activation of 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.

Mobilisation of WestPlan - MOP resources requires confirmation from the SMPC. Figure 5.1 outlines the process of notification and confirmation to mobilise WestPlan - MOP resources.

Figure 5.1 Mobilisation of WestPlan - MOP Resources



# Part 6 Response

## 6.1 Incident Action Plan

The incident action plan (IAP) documents the MOP emergency response Objectives, prioritised operational Strategies and the corresponding response Tasks to achieve them. In addition the DoT IAP, in DoT OSCP Appendix B, contains important information on the ICS and contact information for key positions. The DoT IAP is supported by Operational Assignment plans that contain more specified information for a specified operational period and activity.

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).

Due to the scope of the DoT OSCP and the inability to predict the location and source of potential spills, DoT does not have Initial Response / First Strike Response plans. DoT may utilise plans established by local Control Agencies to assist in rapid response.

DoT OSCP Appendices C, D & E contain tools to assist the IMT units in assessing strategies; identifying constrains; establishing protection priorities and making decisions to create IAPs.

#### 6.1.1 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. The Planning unit should consider sections 6.2 through to Part 7 for possible concurrent activities and planning responsibility.

#### 6.2 **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. The DoT IC will seek advice from the ESC to conduct NEBA assessments and to support the Planning unit.

The type of oil spilt and weather conditions will determine the effectiveness of techniques. Guidance on oil types and their behavior in the marine environment is available in DoT OSCP Appendix J.

Response strategies will also consider the response protection priorities. General protection priorities for responding to MOP emergencies are:

- Human health and Safety
- Habitat and cultural resources
- Rare / endangered flora and fauna
- Commercial resources

• Recreational and amenity areas

While human health and safety is always the number one priority, the order of other priorities may be reconsidered when producing the IAP for a MOP emergency.

#### 6.2.1 Surveillance and Situational Monitoring

Surveillance and situational monitoring will be required for every MOP emergency, however, the methods and resources deployed will vary commensurate to the size and extent of the emergency itself.

Surveillance can be undertaken via aerial, vessel or ground support. Early use of surveillance will be required to establish a situational awareness to assist in the preparation of the IAP. Initially surveillance will be undertaken by the most convenient and efficient methods possible with the immediately available resources. An ongoing surveillance plan will be established as part of the IAP.

Situational monitoring, similar to surveillance, is required to assist in preparing IAPs and in identifying any requirements to modify response objectives and strategies. Monitoring may include:

- Oil spill tracking/trajectory (modeling and real time)
- Air quality
- Shoreline assessment
- Weather assessment

#### 6.2.2 Natural Recovery

Natural Recovery relies on the impacted environment's ability to recovery from a MOP emergency without artificial intervention. Natural Recovery may be considered in MOP emergencies where:

- Impact to environmental sensitivities is minimal
- Responding may cause a threat to human life and health
- Other response techniques will not be effective
- High energy environments will promote rapid Natural recovery

Where Natural Recovery is selected as a response strategy, situation monitoring should be undertaken and may include:

- Aerial surveillance
- Oil spill tracking (modeling and real time)
- Vessel surveillance
- Shoreline surveillance

#### 6.2.3 Containment and Recovery / Marine Response

Containment and Recovery is part of Marine Response operations and relies on the use of specialised equipment such as booms and skimmers to remove oil from the marine environment. Containment and Recovery may be considered in MOP emergencies where:

- Impact to environmental sensitivities can be minimised through booming and skimming
- Weather conditions are favourable
- Equipment and trained personnel are available for deployment

Where Containment and Recovery is selected as a response strategy, the following needs to be considered:

- Suitable vessel availability
- Trained personnel
- Availability of oily waste storage
- Secondary contamination risks of vessel movement and equipment recovery
- Spill trajectory and changes
- Oil type and its suitability for booming and skimming

DoT OSCP Appendix D contains further information on containment and recovery to assist in determining the appropriate equipment and techniques to use for a particular MOP emergency. The MEER Basic Equipment Operations handbook also provides information on booms and skimmers and included Standard Operating Procedures (SOP) for basic containment and recovery equipment.

#### 6.2.4 Shoreline Response

Shoreline Response can be divided into three main functions, Shoreline Assessment, Shoreline Protection and Shoreline Clean-Up.

#### Shoreline Assessment

Shoreline Assessment is a simple and comprehensive survey of a shoreline, providing data to enable decision making for shoreline protection, cleanup and monitoring and utilises a systematic approach with standard terminologies. Shoreline Assessment, as a tool for monitoring, can occur at any time during a MOP emergency including prior to shoreline impact to establish a baseline for future assessments. Where Shoreline Assessment is selected as a response strategy, the following needs to be considered:

- Shoreline Accessibility
- Safety of Shoreline Assessment teams
- Methods of shoreline assessment (on foot, using vehicles, by vessel, aerial)
- Adequately trained shoreline assessment personnel

Ideally Shoreline Assessment should be conducted by trained personnel who have attained the WA Oiled Shoreline Response Course competencies. MEER's training database identifies WA based personnel who have completed Shoreline Assessment training. The MEER WA Oiled Shoreline Field Booklet provides guidance on conducting shoreline assessment and possible required resources.

#### **Shoreline Protection**

Shoreline Protection, as with Marine Response containment and recovery involves the use of booming strategies to control the impact of oil onto shorelines. There are 4 strategies, deflection, collection, containment and exclusion, each designed to affect the natural course of oil impacting shorelines. Decisions for protection priorities will be established by the IMT as part of the IAP and the following will need to be considered:

- Shoreline/resource importance (ecologically, economically, socially)
- Likelihood of impact and time to impact
- Availability and effectiveness of clean-up methods
- Extent of impact and time for recovery
- Availability of resources
- Accessibility of shoreline/resource for clean-up strategies.

The MEER WA Oiled Shoreline Field Booklet provides guidance on Shoreline Protection methods and environmental consideration.

#### Shoreline Clean-Up

Shoreline Clean-Up is the operational and tactical component of Shoreline Response. Shoreline Clean-Up techniques include:

- Natural Recovery
- Manual Recovery
- Mechanical Recovery
- Sorbents
- Vacuum Recovery
- Sediment Reworking
- Vegetation Cutting
- Flushing (high volume, low pressure)
- Washing (low volume, high pressure)
- Cleaning agents
- In situ-burning

A Shoreline Clean-Up Operational Assignment plan will be established as part of the IAP. The MEER WA Oiled Shoreline Field Booklet provides guidance and consideration on selecting response techniques. DoT OSCP Appendix D contains further information on Shoreline Clean-Up to assist in determining the appropriate equipment and techniques to use for a particular MOP emergency.

All aspects of Shoreline Response will need to be monitored throughout the MOP emergency response to ensure NEBA continues to be achieved.

#### 6.2.5 Remediation and Dispersion

While Natural Recovery relies on the impacted environment's ability to recovery from a MOP emergency without artificial intervention, there are remediation and dispersion applications that can aid and increase the Natural Recovery processes

#### **Oil Spill Control Agents (OSCAs)**

Traditionally OSCAs were chemical Dispersants designed to affect a slick at a molecular level to chemically break apart the slick and increasing the surface area in contact with the natural environment where biological processes can more rapidly break down the remaining slick. There are a number of considerations in using Dispersants and the DoT OSCP Appendix I should be considered in the planning process. Newer OSCAs are becoming available that work as surface cleaning agents and oil herding agents which like traditional chemical Dispersants have the same end intention of increasing the efficiency of natural processes.

#### Bioremediation

Similar to the process of adding OSCAs, Bioremediation involves introducing organisms or nutrients to increase the efficiency of naturally occurring organisms to breakdown a spill.

#### Agitation

Natural Recovery can be assisted by increasing the surface area of the slick. Agitation can be applied by vessels through the use of propeller wash or fire hoses. Applying agitation should only be used if the human health and safety will not be compromised and if NEBA has indicated agitation will provide additional benefit than Natural recovery alone.

Any use of Remediation and Dispersion techniques should be undertaken in consultation with environmental experts to ensure NEBA is achieved.

#### 6.2.6 In-Situ Burning

Advances in In-Situ burning techniques and the understanding of the benefits and constraints have been identified out of the 2009 Deep Water Horizon spill in the Gulf of Mexico. Traditionally this technique has not been employed in Australia and requires specialised equipment and trained personnel. Any decision to use In-Situ burning should be undertaken with environmental and technical experts to ensure responder safety and NEBA is achieved.

## 6.3 Integration with Sub-Plans / Responder Toolkits

The DoT OSCP integrates with a number of Sub-Plans and Responder Toolkits which contain more descriptive and operational support for MOP emergencies. Relevant plans and Toolkits include:

- Public Information Unit and Media Sub-Plan (DoT OSCP Appendix G)
- Oiled Wildlife Response Plan (WestPlan MOP 4.9.3)
- OH & S Sub plan (DoT OSCP Appendix F)
- Waste management Sub plan (DoT OSCP Appendix H)
- OSCAs Guidelines (DoT OSCP Appendix I)
- Planning Unit Toolkit (DoT OSCP Appendix C)
- Operations Unit Toolkit (DoT OSCP Appendix D)
- Logistics Unit Toolkit (DoT OSCP Appendix E)

# Part 7 Response Termination

## 7.1 Responsibility for Termination

WestPlan - MOP Part 5 outlines the arrangements for Recovery from a MOP emergency. In a MOP emergency, the IC is responsible for determining the end point criteria and triggers for the transition from response to recovery. The IC will confirm with the SMPC when the transition point has been reached. The *Foreshore Assessment and Response Termination Plans Advisory*, available from AMSA, provides guidance on considering response termination and transition to recovery.

## 7.2 Establishing and Assessing End Point Criteria

End Point criteria will be established and assessed by the IC in consultation with the Jurisdictional Authority, Control Agency, Support Agencies and relevant technical experts. If DoT is the Control Agency, the Planning Unit in consultation with the ESC will establish End Point Criteria applying environmental management and NEBA principles. The criteria will be confirmed by the IC in consultation with the SMPC prior to being accepted into the IAP for response termination.

End Point Criteria will be considered and established early in an incident response to assist in the prioritising of response strategies and to ensure that suitable monitoring programs are implemented that will identify when End Point Criteria are reached. Changes to established End Point Criteria will need to be reassessed and confirmed throughout a response.

## 7.3 Demobilisation and Stand Down Procedures

Demobilisation and standing down of resources may occur at any stage during a response and at varying levels. Human Resources and Equipment at any time may be mobilised as:

- Notified
- Standby
- Active
- Stand Down

The Status of a resource will be at Stand Down when the resource is no longer required as part of response operations. A resource may be held in Standby for a period prior to being declared as Stand Down to allow the reactivation of the resource if required. Once a resource is declared to be in Stand Down, the resource will be demobilised from the incident response.

#### 7.3.1 Demobilisation of Human Resources

All human resources involved in a MOP emergency will be demobilised through a debrief. Debriefs will be facilitated by the IC, Unit Officers, Division Coordinators and team leaders as appropriate for the MOP emergency and will outline the relevant stand down procedures and ensure all administrational documentation has been completed prior to personnel departing the MOP emergency response.

#### 7.3.2 Demobilisation of Equipment Resources

WestPlan - MOP 5.2.3 outlines the requirement for equipment demobilisation. If DoT is the Control Agency, the contractor Toxfree will be engaged to clean equipment for return to the custodian.

## 7.4 Investigation and Reporting

WestPlan - MOP 5.5 and 5.6 outlines investigation and reporting for a MOP emergency response.

## 7.5 Cost recovery

WestPlan - MOP 5.4 outlines cost recovery for a MOP emergency. If DoT is the Control Agency, the WestPlan - MOP Appendix F outlines the procedures for Cost Recovery.

## 7.6 Post Spill Monitoring

In conjunction with establishing end point criteria, the Control Agency is responsible for designing a scientific monitoring program to be approved by the Jurisdictional Authority. If DoT is the Control Agency, the Planning Unit in consultation with the ESC will establish the monitoring program. Monitoring programs should be established early in the response and be included as part of the IAP. Monitoring programs approved by the Jurisdictional Authority will be included in the cost recovery process.

The International Tanker Owners Pollution Federation (ITOPF) technical information paper 14 <u>Sampling and Monitoring of Marine Oil Spills</u>, contains guidance on establishing a monitoring program however it does not provide guidance on specific impacts or species monitoring. Monitoring programs should be consistent with all relevant legislation and consider the ISO 14001 Environmental Management.

# Part 8 Glossary of acronyms and terms

The following terms are used in this plan and are consistent with the WA emergency management arrangements, and other State emergency plans

## 8.1 Acronyms

AIIMS AMOSPlan AMSA CA DoF DoT DoT OSCP DPaW ESC FOB FRA FWADC HAZMAT IAP IC ICC ICS IMRR	Australian Interagency Incident Management System AMOSC mutual aid plan Australian Maritime Safety Authority Control Agency Department of Fisheries Department of Transport Department of Transport Oil Spill Contingency Plan Department of Parks and Wildlife Environmental and Scientific Co-ordinator. Forward Operating Base First Response Agency Fixed Wing Aerial Dispersant Capability. Hazardous Material Incident Action Plan Incident Controller Incident Control Centre Incident Command Structure WA Incident Management Response Register
IMT	Incident Management Team
ISG	Incident Support Group
ITOPF	International Tanker Owners Pollution Federation
JA	Jurisdictional Authority
MEER	Maritime Environmental Emergency Response unit
MOA	Memorandum of Agreement
MOP	Marine Oil Pollution
MTE	Marine Transport Emergency
National Plan	The National Plan for Maritime Environmental Emergencies 2014
NEBA	Net Environmental Benefit Analysis
OPEP	Oil Pollution Emergency Plan
OSCA	Oil Spill Control Agent
OSCP	Oil Spill Contingency Plan
OSRA	Oil Spill Response Atlas
PA POLREP	Port Authority Pollution Report
PPRR	Prevention, Preparation, Response Recovery
RCC Australia	Rescue Coordination Centre – Australia
SA	Support Agency
SAG	State Marine Pollution: Strategic Advisory Group
SCG	State Marine Pollution: Strategic Coordination Group
SITREP	Situation Report
SMPC	State Marine Pollution Controller
SMOPC	State Marine Oil Pollution Committee
WA	Western Australia
WestPlan	State Emergency Management Plan

## 8.2 Glossary of Terms

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

**Cold zone:** All areas external to the Warm and Hot zone, free from any oil contamination. May have some restricted access but generally at the lowest level of security.

**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 which may impact on a person or a community, and may also include social, physical and built elements, which surround and interact with a community.

**Environmental and Scientific Co-ordinator**: 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.

**Forward Operating Base:** Centralised onsite control area, additional to the ICC, to assist in the control of operations.

Hot zone: The area/s of active operation and/ or hazardous/contaminated environment.

**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 of 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 methodology for comparing and ranking the net environmental benefit associated with multiple response alternatives. Net environmental benefits are the gains in environmental services or other ecological properties attained by remediation or ecological restoration, minus the environmental injuries caused by those actions.

**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.

## Part 9 Appendix

- 9.1 Appendix A Checklists
- 9.2 Appendix B Forms and Templates
- 9.3 Appendix C Planning Unit Toolkit
- 9.4 Appendix D Operations Unit Toolkit
- 9.5 Appendix E Logistics Unit toolkit
- 9.6 Appendix F OH & S Sub-Plan
- 9.7 Appendix G Public Information Unit and Media Sub-Plan
- 9.8 Appendix H Waste Management Sub-Plan
- 9.9 Appendix I Dispersant Guidelines
- 9.10 Appendix J Oil Characteristics
- 9.11 Appendix K Dispersant SDS
- 9.12 Appendix L Memorandum of Agreement
- 9.13 Appendix M Cultural and Heritage Sub-Plan