

# North-west Australia 4D Marine Seismic Survey – Oil Pollution First Strike Plan

Security & Emergency Management  
Hydrocarbon Spill Preparedness Unit

July 2019  
Revision: 0

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Controlled Ref No: W8000AF1401139584

Revision: 0

Native file DRIMS No: 1401139584

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# NORTH-WEST AUSTRALIA 4D MARINE SEISMIC SURVEY OIL POLLUTION FIRST STRIKE PLAN

**SPILL FROM  
VESSEL**

*(Note: SOPEP should be  
implemented in conjunction  
with this document)*

**LEVEL 1**  
**CONTROL AGENCY: AMSA**  
**INCIDENT CONTROLLER: VESSEL MASTER (with  
response assistance from  
Woodside)**

**LEVEL 2 & 3**  
**CONTROL AGENCY: AMSA**  
**INCIDENT CONTROLLER: AMSA (with response  
assistance from  
Woodside)**

## Oil Spill Incident Levels

The most significant characteristic of the below table is considered when determining oil spill incident level or escalation potential.

Characteristic	Level 1 Indicators	Level 2 Indicators	Level 3 Indicators
General Description	Generally able to be resolved within 24-48 hours.	Generally a response is required beyond 48 hours.	Response may extend beyond weeks.
Woodside Emergency Management (EM)/ Crisis Management Team (CMT) Activation	Onsite Incident Controller (IC) activated. Use of ICC support may be required.	Additional support required from Corporate Incident Coordination Centre (CICC) Duty Manager (DM).	Includes Perth based CMT activation.
Number of Agencies	First-response agency and Incident Management Team (IMT)/	Multi-agency response.	Agencies from across government and industry.
Environment	Isolated impacts or with natural recovery expected within weeks.	Significant impacts and recovery may take months.	Significant area and recovery may take months. Remediation required.
Economy	Business level disruption (i.e. Woodside).	Business failure or 'Channel' impacts.	Disruption to a sector.
Public Affairs	Local and regional media coverage (Western Australia).	National media coverage.	International media coverage.
Volumes	0-10 m <sup>3</sup> .	10-1,000 m <sup>3</sup> .	>1,000 m <sup>3</sup> .

**For guidance on credible spill scenarios and hydrocarbon characteristics refer to APPENDIX A – Credible Spill Scenarios and Hydrocarbon Information.**

## For Spills Entering State Waters

In the event of a spill where Woodside is the responsible party and the spill may impact State waters/shorelines, Woodside will notify the Western Australia Department of Transport (DoT).

If the spill impacts State waters/shorelines and is a Level 1, Woodside will remain the Controlling Agency. If the spill is a Level 2/3 then DoT will become the Control Agency for the response in State waters/shorelines only. DoT will appoint an Incident Controller (IC) and form a separate IMT to manage the State waters/shorelines response only. The coordination structure for a concurrent hydrocarbon spill in both Commonwealth and State waters/shorelines is shown in APPENDIX E – Coordination Structure for a Concurrent Hydrocarbon Spill in Both Commonwealth and State Waters/Shorelines.

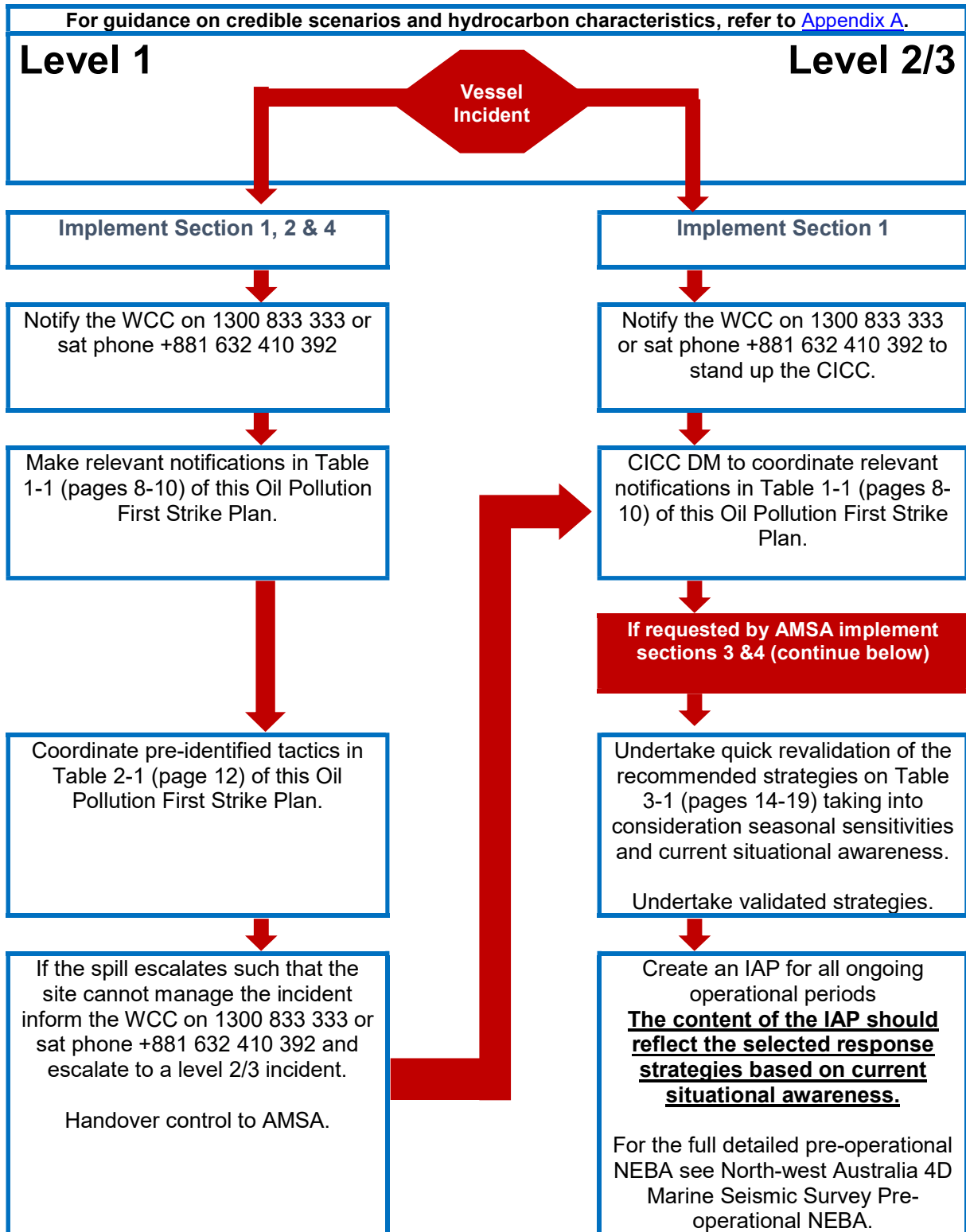
Initially Woodside will be required to make available an appropriate number of suitably qualified persons to work in the DoT IMT (see APPENDIX G – Woodside liaison officer resources to DoT). DoT's role as the Controlling Agency for Level 2 and 3 spills in State waters/shorelines does not negate the requirement for Woodside to have appropriate plans and resources in place to adequately respond or to commence the initial response actions to a spill prior to DoT establishing incident control in line with DoT Offshore Petroleum Industry Guidance Note (September 2018), Marine Oil Pollution: Response and Consultation Arrangements:

[http://www.transport.wa.gov.au/mediaFiles/marine/MAC\\_P\\_Westplan\\_MOP\\_OffshorePetroleumIndGuidance.pdf](http://www.transport.wa.gov.au/mediaFiles/marine/MAC_P_Westplan_MOP_OffshorePetroleumIndGuidance.pdf)

Woodside's Incident Management Structure for a Hydrocarbon Spill, including Woodside Liaison Officer's command structure within DoT can be seen at APPENDIX F – Woodside incident management structure.

# Response Process Overview

Use the below to determine which parts of this plan are relevant to the incident.



## 1. NOTIFICATIONS (ALL LEVELS)

The Incident Controller or delegate must ensure the below notifications (Table 1-1) are completed within the designated timeframes.

For other environmental notifications required refer to Section 7.8 of the *North-west Australia 4D Marine Seismic Survey Environment Plan*.

**Table 1-1: Immediate Notifications**

Notification timing	Responsibility	Authority/ Company	Name	Contact Number	Instruction	Form/Template	Mark Complete (✓)
Notifications to be made for ALL LEVELS of spill <i>(For spills from a vessel the following notifications must be undertaken by a WEL representative)</i>							
Immediately	Vessel Master	Woodside Communication Centre (WCC)	Duty Manager	1300 833 333 or +61 893 487 184 / 4624 or Sat phone: +881 632 410 392	Verbally notify WCC of event and estimated volume and hydrocarbon type.	Verbal	
Within 2 hours	Woodside Site Representative (WSR)	National Offshore Petroleum Safety Environmental Management Authority (NOPSEMA <sup>1</sup> )	Incident notification office	+61 8 6461 7090	Verbally notify NOPSEMA for spills >80L.	APPENDIX B – Forms FORM 1	
Within 3 days	WSR				Provide a written NOPSEMA Incident Report Form as soon as practicable (no later than 3 days after notification) (cc to NOPTA and DMIRS).  NOPSEMA: <a href="mailto:submissions@nopsema.gov.au">submissions@nopsema.gov.au</a> NOPTA: <a href="mailto:resources@nopta.gov.au">resources@nopta.gov.au</a> DMIRS: <a href="mailto:petreps@dmirs.wa.gov.au">petreps@dmirs.wa.gov.au</a>		

<sup>1</sup> Notification to NOPSEMA must be from a Woodside Representative.

Notification timing	Responsibility	Authority/ Company	Name	Contact Number	Instruction	Form/Template	Mark Complete (✓)
As soon as practicable	WSR	Woodside	Hydrocarbon Spill Preparedness (HSP) Manager	+61 413 941 307	Verbally notify HSP Manager of event and estimated volume and hydrocarbon type.	Verbal	
Without delay as per protection of the Sea Act, part II, section 11(1)	Vessel Master	Australian Maritime Safety Authority (AMSA)	Response Coordination Centre (RCC)	1800 641 792 or +61 2 6230 6811	Verbally notify AMSA RCC of the hydrocarbon spill.  Follow up with a written Marine Pollution Report (POLREP) as soon as practicable following verbal notification.	APPENDIX B – Forms FORM 3	
As soon as practicable	CICC DM or Delegate	Department of Environment and Energy	Director of National Parks (Director)	+61 8 6274 2220	The Director is notified in the event of oil pollution within a marine park, or where an oil spill response action must be taken within a marine park, so far as reasonably practicable, prior to response action being taken.	Verbal	
<b>Additional Level 2/3 Notifications</b>							
As soon as practicable	CICC DM or Delegate	Australian Marine Oil Spill Centre (AMOSC)	AMOSC Duty Manager	+61(0) 438 379 328 <a href="mailto:amosc@amosc.com.au">amosc@amosc.com.au</a>	Notify AMOSC that a spill has occurred and follow-up with an email from the IC/CICC DM, CMT Leader or Oil Spill Preparedness Manager to formally activate AMOSC.  Determine what resources are required consistent with the AMOSPlan and detail in a Service Contract that will be sent to Woodside from AMOSC upon activation.	APPENDIX B – Forms FORM 4	
As soon as practicable	CICC DM or Delegate	Oil Spill Response Limited (OSRL)	OSRL Duty Manager	Singapore Office +65 6266 1566	Contact OSRL Duty Manager and request assistance from technical advisor in Perth.  Send the notification form to OSRL as soon as practicable.  For mobilisation of resources, send the Mobilisation Form to OSRL as soon as practicable.	APPENDIX B – Forms Notification: FORM 6a Mobilisation: FORM 6b	

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Notification timing	Responsibility	Authority/ Company	Name	Contact Number	Instruction	Form/Template	Mark Complete (✓)
As soon as practicable or if spill is likely to extend into WA State waters	CICC DM or Delegate	WA Department of Transport	DOT Duty Manager	+61 8 9480 9924	Marine Duty Manager to verbally notify DoT that a spill has occurred and request use of equipment stored in the Exmouth supply shed at Harold E Holt. Follow up with a written POLREP as soon as practicable following verbal notification. Additionally, DoT to be notified if spill is likely to extend into WA State waters. Request DoT to provide Liaison to WEL IMT.	APPENDIX B – Forms FORM 5	
As soon as practicable if there is potential for oiled wildlife or the spill is expected to contact land or waters managed by WA Department of Biodiversity, Conservation and Attractions	CICC DM or Delegate	WA Department of Biodiversity, Conservation and Attractions (DBCA)	Duty Officer	+61 8 9219 9108	Phone call notification	Verbal	
As soon as practicable	CICC DM or Delegate	Marine Spill Response Corporation (MSRC)	MSRC Response Manager	+1 732 417 0175 or +1 703 326 5609	Activate the contract with MSRC (in full) for the provision of up to 30 personnel depending on what skills are required. Please note that provision of these personnel from MSRC are on a best endeavours basis and are not guaranteed.	Verbal	

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## 2. LEVEL 1 RESPONSE

### 2.1 Mobilisation of Response Techniques

For the relevant hydrocarbon type, undertake quick revalidation of the recommended techniques and pre-identified tactics indicated with a 'Yes' in

Table 2-1. Undertake all validated pre-identified tactics immediately. These tactics should be carried out using the associated plan identified under Table 2-1 Operational Plan column.

All response techniques and pre-identified tactics have been identified from the pre-operational NEBA presented in the North-west Australia 4D Marine Seismic Survey Environment Plan Appendix D: Oil Spill Preparedness and Response Mitigation Assessment.

**Table 2-1: Level 1 Response Summary**

Response Technique	Hydrocarbon Type	Pre- Identified Tactics	Responsible	ALARP Commitment	Complete ✓	Link to Operational Plans for notification numbers and actions
	Marine Diesel					
<b>Vessel Shipboard Oil Pollution Emergency Plan (SOPEP)</b>	Yes	Vessel master to activate Shipboard Oil Pollution Emergency Plan (SOPEP) when a pollution incident has occurred or is likely to occur.	Vessel Master/ Officers	Refer vessel specific SOPEP		Refer vessel specific SOPEP
<b>Monitor and Evaluate (Operational Monitoring)</b>	Yes	If a surface sheen is visible from the facility deploy the satellite tracking buoy within 2 hours.	WSR	Tracking buoy deployed within 2 hours		Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02) of The Operational Monitoring Operational Plan.  Deploy tracking buoy in accordance with <a href="#">APPENDIX D – Tracking Buoy Deployment Instructions</a> .

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### 3. LEVEL 2/3 RESPONSE

#### 3.1 Mobilisation of Response Strategies

For the relevant hydrocarbon type, undertake quick revalidation of the recommended techniques and pre-identified tactics indicated with a 'Yes' in

Table 3-1. Undertake all validated pre-identified tactics immediately. These tactics should be carried out using the associated plan identified Table 3-1 under Table 3-1 Operational Plan column.

All response techniques and pre-identified tactics have been identified from the pre-operational NEBA presented in the North-west Australia 4D Marine Seismic Survey Environment Plan Appendix D: Oil Spill Preparedness and Response Mitigation Assessment.

**Table 3-1: Level 2/3 Response Summary**

Response Technique	Hydrocarbon Type	Pre- Identified Tactics	Responsible	ALARP Commitment Summary	Complete ✓	Link to Operational Plans for notification numbers and actions
	Marine Diesel					
<b>Vessel Shipboard Oil Pollution Emergency Plan (SOPEP)</b>	Yes	Vessel master to activate Shipboard Oil Pollution Emergency Plan (SOPEP) when a pollution incident has occurred or is likely to occur.	Vessel Master/ Officers	Refer vessel specific SOPEP.		Refer vessel specific SOPEP.
<b>Monitor and Evaluate (Operational Monitoring)</b>	Yes	If a surface sheen is visible from the facility deploy the satellite tracking buoy within 2 hours.	Operations	Tracking buoy deployed within 2 hours.		Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02) of The Operational Monitoring Operational Plan. Deploy tracking buoy in accordance with <a href="#">APPENDIX D – Tracking Buoy Deployment Instructions</a> .
	Yes	Undertake initial modelling using the Rapid assessment oil spill tool <a href="#">Woodside Maps (Emergency Response)</a> and weathering fate analysis using ADIOS (or refer to the hydrocarbon information in <a href="#">APPENDIX A – Credible Spill Scenarios And Hydrocarbon Information</a> ).	Intelligence or Environment	Initial modelling within 6 hours using the Rapid Assessment Tool. Detailed modelling within 4 hours of APASA receiving information from Woodside.		Predictive Modelling of Hydrocarbons to Assess Resources at Risk (OM01) of The Operational Monitoring Operational Plan.
	Yes	Send Oil Spill Trajectory Modelling (OSTM) form ( <a href="#">APPENDIX B – Forms, FORM 7</a> ) to RPS APASA.	Intelligence			
	Yes	Instruct Aviation Duty Manager to commence aerial observations in daylight hours. Aerial surveillance observer to	Logistics – Aviation	2 trained aerial observers available by day 1. 1 aircraft available for two sorties per day from day 1.		

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		complete log in <a href="#">APPENDIX B – Forms, FORM 8.</a>		Observer to compile report during flight and made available to the IMT within 2 hours of landing after each sortie. Unmanned Aerial Vehicles/ Systems (UAV/UASs) to support tactics and as contingency if required.		
Yes		The Intelligence Duty Manager should be instructed to stand up Kongsberg Satellite Services (KSAT) to provide satellite imagery of the spill (email <a href="mailto:emergency@ksat.no">emergency@ksat.no</a> and call +47 77 66 12 00).	Intelligence	Service provider will confirm availability of an initial acquisition within 2 hours. First image received with 24 hours of Woodside confirming the proposed acquisition plan. Service provider to submit report to Woodside per image with polygon of any possible or identified slick(s) with metadata. Data received to be uploaded into Woodside Common Operating Picture (COP daily)		
Yes		Consider the need to mobilise resources to undertake water quality monitoring (OM03).	Planning or Environment	2 specialists from resource pool deployed within 23 hours. Daily reports will be provided to IMT.		Detecting and Monitoring for the Presence and Properties of Hydrocarbons in the Marine Environment (OM03) of The Operational Monitoring Operational Plan.
Yes		Consider the need to mobilise resources to undertake pre-emptive assessment of sensitive receptors at risk (OM04).	Planning or Environment	2 specialists from resource pool deployed within 23 hours. Daily reports will be provided to IMT.		Pre-emptive Assessment of Sensitive Receptors (OM04) of The Operational Monitoring Operational Plan.
Yes		Consider the need to mobilise resources to undertake shoreline assessment surveys (OM05).	Planning or Environment	2 specialists from resource pool deployed within 23 hours for each of the Response Protection Areas (RPA) with predicted impacts at greater than 100g/m <sup>2</sup> . Shoreline Clean-up Assessment Team (SCAT) reports provided to IMT daily.		Shoreline Assessment (OM05) of The Operational Monitoring Operational Plan.

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				Shoreline access routes with the least environmental impact identified and selected by specialist in SCAT operations.		
<b>Subsea Dispersant</b>	No	This strategy is not relevant for surface spills.				
<b>Surface Dispersant</b>	No	Dispersant application is not considered an appropriate response strategy for this activity as described in the North-west Australia 4D Marine Seismic Survey Environment Plan Appendix D (Section 4.2 of the Woodside's Oil Spill Preparedness and Response Mitigation Assessment).				
<b>Mechanical Dispersion</b>	No	This strategy is not recommended in an open ocean environment where wind and wave action are likely to deliver similar advantages.				
<b>Containment and Recovery</b>	No	This strategy is not recommended for marine diesel and weathering data shows rapid spreading, thinning and evaporation which will render containment and recovery operations ineffective.				
<b>In-situ Burning</b>	No	This strategy is not recommended due to prevailing met ocean conditions which limits its feasibility in the region and the health and safety risks for response personnel associated with the containment and subsequent burning of hydrocarbons.				
<b>Shoreline Protection and Deflection</b>	No	This strategy is not recommended for marine diesel and weathering data shows rapid spreading, thinning and evaporation which will render shoreline protection and deflection operations ineffective at first impact.				
<b>Shoreline Clean Up</b>	Yes	Equipment from Woodside, AMOSC and AMSA Western Australian Stockpiles and relevant personnel mobilised.	Logistics and Planning	Deployment of 1 shoreline clean-up team to compromised RPAs within 24 hours.		Tactical Response Plans <i>Logistics to download immediately and follow steps</i>

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		Consideration of mobilisation of interstate/international shoreline clean-up equipment and relevant personnel (i.e. OSRL).		Upon request from IMT, mobilise and deploy 1 shoreline clean-up by Day 2 and 3 shoreline clean-up team by Day 3 to each site where operational monitoring predicts contact by accumulation >100 g/m <sup>2</sup> .		Shoreline Clean-up Operational Plan <i>Logistics to download immediately and follow steps</i>
		Mobilise security provider as per security support plan.				Land Based Security Support Plan
<b>Waste Management</b>	<b>Yes</b>	Contract with waste management services for transport, removal, treatment and disposal of waste. Waste management services available and employed during response. All shorelines zoned and marked before clean-up operations commence.	Logistics and Planning	Contract with waste management services for transport, removal, treatment and disposal of waste. Access to at least 40-200 m <sup>3</sup> of solid waste storage available within 24 hours. Then access to an additional 100-500 m <sup>3</sup> of solid waste storage within an additional 24 hours. Waste management to be conducted in accordance with Australian laws and regulations. Recovered hydrocarbons and wastes will be transferred to licensed treatment facility for reprocessing or disposal.		
<b>Oiled Wildlife Response</b>	<b>Yes</b>	If oiled wildlife is a potential impact, request AMOSC to mobilise containerised oiled wildlife first strike kits and relevant personnel. Refer to relevant Tactical Response Plan for potential wildlife at risk. Mobilise AMOSC Oiled Wildlife Containers. Consider whether additional equipment is required from local suppliers.	Logistics and Planning	Contracted capability to treat 100 individual fauna. Facilities for oiled wildlife rehabilitation are operational 24/7. Vessels used in hazing/pre-emptive capture to approach fauna at slow speeds. Seek advice and assistance from the Oiled Wildlife Advisor from the DBCA and in accordance with the processes and methodologies described in the WA OWRP and the relevant regional plan.		Oiled Wildlife Response Operational Plan

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<b>Scientific Monitoring (Type II)</b>	<b>Yes</b>	Notify Woodside science team of spill event.	Environment	Activate a scientific monitoring program (SMP) following a Level 2 spill.	Oil Spill Scientific Monitoring Programme – Operational Plan
<b>Incident Management System</b>	<b>Yes</b>	Operational NEBA	Environment	Confirm that the response strategies adopted at the time of acceptance remain appropriate to reduce the consequences of the spill within 24 hours. Record the information and data from operational and scientific monitoring activities used to inform the NEBA	
		Stakeholder engagement	Corporate Affairs	Prompt and record all notifications (including government notifications) for stakeholders in the region are made. In the event of a response, identification of relevant stakeholders will be re-assessed throughout the response period	
		Personnel required to support any response	IMT	Immediately activate the IMT with personnel filling all the identified roles. Collect and interpret information from the scene of the incident to determine support requirements to the site-based IMT, develop an Incident Action Plan (IAP) and assist with the execution of that plan	Incident Action Plan

NOTE: Any first strike commitments made in the EP should be reflected in the 'Pre-identified Tactics' column of the above table. NOTE: Any commitments, that need to be commenced within 48 hours, that are made in the Mitigation Assessment Document should be reflected in the Timing to meet ALARP Commitment column.

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## 4. PRIORITY RECEPTORS

Note: DoT are the Control Agency to respond to all sites in a Level 2/3 spill into State waters/shorelines.

Action: Provide DoT with all relevant Tactical Response Plans for any locations predicted to be contacted.

Based on hydrocarbon spill risk modelling results the sensitive receptors outlined Table 4-2 are identified as Response Protection Area (RPA), as they have the potential to be contacted by any hydrocarbon at or above threshold levels within 48 hours of a spill. The initial impact will be at 24 hours (Day 2) at Ningaloo Coast North and World Heritage Area (WHA) (first shoreline contact totals 31 m<sup>3</sup>).

Please note that impact thresholds (10 g/m<sup>2</sup> surface hydrocarbon concentration, 100 g/m<sup>2</sup> shoreline accumulation, and 500 ppb entrained hydrocarbon concentration) are used to determine the Environment that May Be Affected (EMBA) identified in the Environment Plan and are lower than response thresholds (Table 4-1).

**Table 4-1 Response Thresholds**

Surface Hydrocarbon (g/m <sup>2</sup> )	Description
>10	Predicted minimum threshold for commencing operational monitoring
50	Predicted minimum floating oil threshold for containment and recovery and surface dispersant application <sup>2</sup>
100	Predicted optimum floating oil threshold for containment and recovery and surface dispersant application
100	Predicted minimum shoreline accumulation threshold for shoreline assessment operations
250	Predicted minimum threshold for commencing shoreline clean-up operations

**Table 4-2 Receptors for Priority Protection**

Receptor	Distance and Direction from North-west Australia 4D Marine Seismic Survey campaign	Threshold triggered and recommended strategy	Tactical Response Plans (also available within the Data Directory)
Ningaloo Coast North and WHA	14.2 km south.	Threshold: Shoreline accumulation threshold ≥100 g/m <sup>2</sup>  Strategies: Monitor and Evaluate (Operational Monitoring)	<ul style="list-style-type: none"> <li>• Mangrove Bay</li> <li>• Turquoise Bay</li> <li>• Yardie Creek</li> <li>• Muiron Islands</li> <li>• Jurabi to Lighthouse Beaches</li> </ul>

Figure 4-1 illustrates the location of regional sensitive receptors in relation to Area C of the North-west Australia 4D Marine Seismic Survey Campaign and identifies priority protection areas.

<sup>2</sup> At 50g/m<sup>2</sup> containment and recovery and surface dispersant application operations are not expected to be particularly effective. This threshold represents a conservative approach to planning response capability and displaying the spread of surface oil.

Consideration should be given to other stakeholders (including mariners) in the vicinity of the spill location. Table 4-3 indicates the assets within the vicinity of the North-west Australia 4D Marine Seismic Survey operational area.

Preliminary Hydrocarbon spill modelling results indicate the sensitive receptors listed below have the potential to be contacted by hydrocarbons above threshold concentrations beyond 48 hours of a spill:

- Ningaloo Coast North and WHA (entrained hydrocarbon concentrations  $\geq 500$  ppb).

Tactical Response Plans for a number of these locations can be accessed via the [Oil Spill Portal – Tactical Response Plans](#) and are also listed in

Table 3-1 of this document.

Oil Spill Trajectory Modelling (as per OM02) specific to the spill event will be required to determine the regional sensitive receptors to be contacted beyond 48 hours of a spill.

**Table 4-3 Assets in the vicinity of the North-west Australia 4D Marine Seismic Survey operational area.**

Asset	Distance and Direction from North-west Australia 4D Marine Seismic Survey campaign	Operator
Ngujima-Yin FPSO	25km south	Woodside
Ningaloo Vision FPSO	29km south	Santos
Pyrenees Venture FPSO	15km south-west	BHP

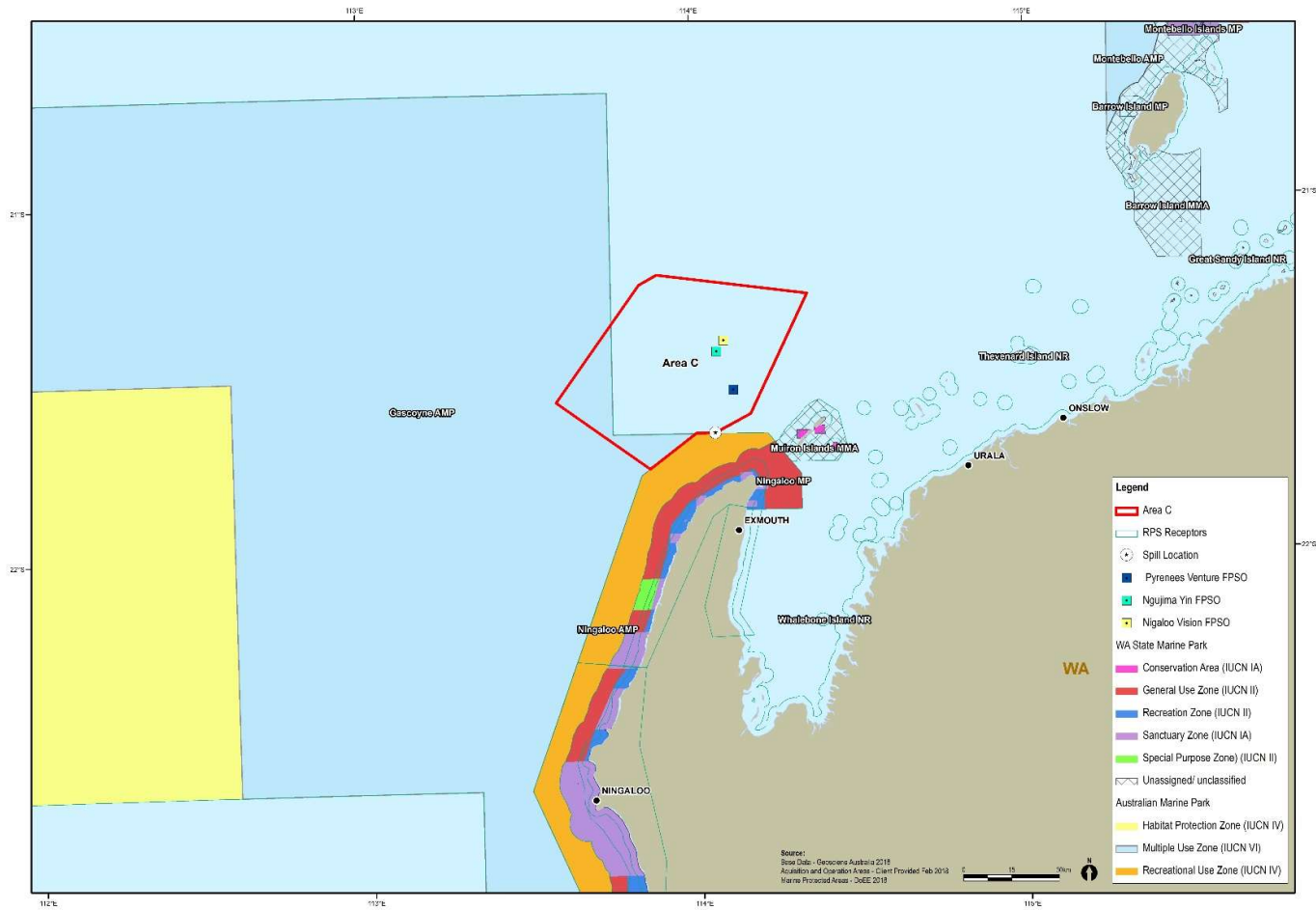


Figure 4-1 – Regional Sensitive Receptors Area C, North-west Australia 4D Marine Seismic Survey

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## APPENDIX A – CREDIBLE SPILL SCENARIOS AND HYDROCARBON INFORMATION

For more detailed hydrocarbon information see the [Hydrocarbon Data Directory](#)

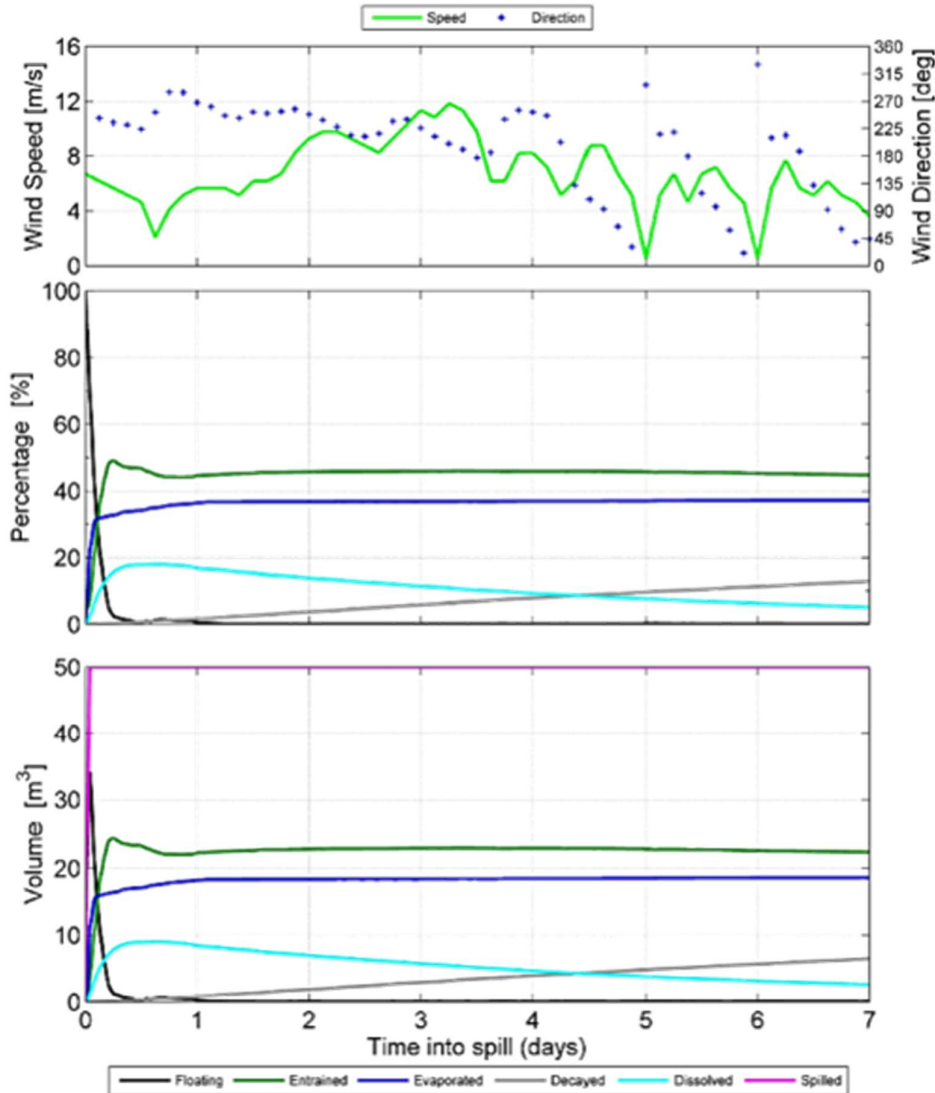
### Credible Spill Scenarios

Scenario	Product	Maximum Volumes	Suggested ADIOS2 Analogue*
Breach of support vessel fuel tanks due to collision with seismic vessel	Marine Diesel	105 m <sup>3</sup>	Diesel Fuel Oil (Southern USA 1) API of 37.2
Breach of seismic vessel fuel tanks due to collision with support vessel	Marine Diesel	190 m <sup>3</sup>	Diesel Fuel Oil (Southern USA 1) API of 37.2
Breach of fuel tanks due to project vessel-other vessel collision including commercial shipping/ fisheries	Marine Diesel	190 m <sup>3</sup>	Diesel Fuel Oil (Southern USA 1) API of 37.2
Partial or total failure of a bulk transfer hose or fittings during bunkering, due to operational stress or other integrity issues	Marine Diesel	<200 L	Diesel Fuel Oil (Southern USA 1) API of 37.2
Partial or total failure of a bulk transfer hose or fittings during bunkering, combined with a failure in procedure to shutoff fuel pumps	Marine Diesel	8 m <sup>3</sup>	Diesel Fuel Oil (Southern USA 1) API of 37.2

\* Initial screening of possible ADIOS2 analogues was done by considering hydrocarbons with similar APIs. Suggested selection was based on the closest distillation cut to WEL hydrocarbon. Only hydrocarbons with distillation cuts that showed results for >380°C were included in selection process.

**Marine Diesel (Group 2 Oil)**

Marine diesel is a mixture of volatile and persistent hydrocarbons with low proportions of highly volatile and residual components. In general, about 6% of the oil mass should evaporate within the first 12 hours (BP < 180 °C); a further 35% should evaporate within the first 24 hours (180 °C < BP < 265 °C); and a further 54% should evaporate over several days (265 °C < BP < 380 °C). Approximately 5% of the oil is shown to be persistent. The aromatic content of the oil is approximately 3%.



**Figure A-1 Mass balance plot representing, as proportion (middle panel) and volume (bottom panel), the weathering of marine diesel spilled onto the water surface as a one-off release (50 m<sup>3</sup> over 1 hour) and subject to variable wind at 27 °C water temperature and 25 °C air temperature.**

Source: Data available from the APASA oil database (Diesel Fuel Oil (Southern USA 1997)). NOTE: This information is provided as guidance only. Spill event OSTM should be sought.



**APPENDIX B – FORMS**

Form No.	Form Name	Link (if available)
1	Record of Initial Verbal Notification to NOPSEMA Template	<a href="#">Link</a>
2	NOPSEMA Incident Report Form	<a href="#">Link</a>
3	Marine Pollution Report (POLREP – AMSA)	<a href="#">Link</a>
4	AMOSOC Service Contract	<a href="#">Link</a>
5	Marine Pollution Report (POLREP – DoT)	<a href="#">Link</a>
6a	OSRL Initial Notification Form	<a href="#">Link</a>
6b	OSRL Mobilisation Activation Form	<a href="#">Link</a>
7	APASA Oil Spill Trajectory Modelling Request	<a href="#">Link</a>
8	Aerial Surveillance Observer Log	<a href="#">Link</a>

## FORM 1

## Record of initial verbal notification to NOPSEMA



(NOPSEMA ph: (08) 6461 7090)

Date of call	
Time of call	
Call made by	
Call made to	

## Information to be provided to NOPSEMA:

<b>Date and Time of incident/time caller became aware of incident</b>	
<b>Details of incident</b>	<ol style="list-style-type: none"> <li>1. Location _____</li> <li>2. Title _____</li> <li>3. Hydrocarbon source <ul style="list-style-type: none"> <li><input type="checkbox"/> Platform _____</li> <li><input type="checkbox"/> Pipeline _____</li> <li><input type="checkbox"/> FPSO _____</li> <li><input type="checkbox"/> Exploration drilling _____</li> <li><input type="checkbox"/> Well _____</li> <li><input type="checkbox"/> Other (please specify) _____</li> </ul> </li> <li>4. Hydrocarbon type _____</li> <li>5. Estimated volume of hydrocarbon _____</li> <li>6. Has the discharge ceased? _____</li> <li>7. Fire, explosion or collision? _____</li> <li>8. Environment Plan(s) _____</li> <li>9. Other Details _____</li> </ol>

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<b>Actions taken to avoid or mitigate environmental impacts</b>	
<b>Corrective actions taken or proposed to stop, control or remedy the incident</b>	

After the initial call is made to NOPSEMA, please send this record as soon as practicable to:

1. NOPSEMA            [submissions@nopsema.gov.au](mailto:submissions@nopsema.gov.au)
2. NOPTA              [resources@nopta.gov.au](mailto:resources@nopta.gov.au)
3. DMP                 [petroleum.environment@dmp.wa.gov.au](mailto:petroleum.environment@dmp.wa.gov.au)

## FORM 2

**[insert NOPSEMA Incident Report Form when printing]**

[Link](#)

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Native file DRIMS No: 1401139584

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### FORM 3

**[insert Marine Pollution Report (POLREP – AMSA) when printing]**

[Link](#)

## FORM 4

**[insert AMOSC Service Contract when printing]**

[Link](#)

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## FORM 5

**[insert Marine Pollution Report (POLREP – DoT) when printing]**

[Link](#)

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## FORM 6a

**[insert OSRL Initial Notification Form when printing]**

[Link](#)

## FORM 6b

**[insert OSRL Mobilisation Activation Form when printing]**

[Link](#)



## FORM 7

**[insert APASA Oil Spill Trajectory Modelling Request when printing]**

[Link](#)

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## FORM 8

**[insert Aerial Surveillance Observer Log when printing]**

[Link](#)

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## APPENDIX C – 7 QUESTIONS OF SPILL ASSESSMENT

<p><b>WHAT IS IT?</b> Oil Type/name Oil properties Specific gravity / viscosity / pour point / asphphaltines / wax content / boiling point</p>	
<p><b>WHERE IS IT?</b> Lat/Long Distance and bearing</p>	
<p><b>HOW BIG IS IT?</b> Area Volume</p>	
<p><b>WHERE IT IS GOING?</b> Weather conditions Currents and tides</p>	
<p><b>WHAT IS IN THE WAY?</b> Resources at risk</p>	
<p><b>WHEN WILL IT GET THERE?</b> Weather conditions Currents and tides</p>	
<p><b>WHAT'S HAPPENING TO IT?</b> Weathering processes</p>	

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## APPENDIX D – TRACKING BUOY DEPLOYMENT INSTRUCTIONS

**(Insert instructions when printing)**

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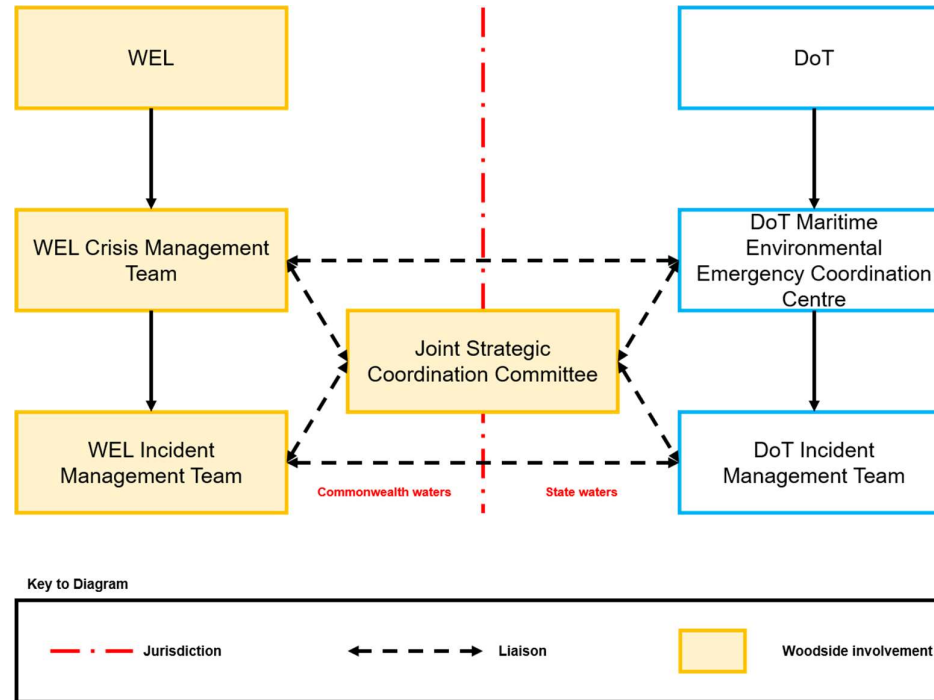
Revision: 0

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## APPENDIX E – COORDINATION STRUCTURE FOR A CONCURRENT HYDROCARBON SPILL IN BOTH COMMONWEALTH AND STATE WATERS/ShORELINES<sup>3</sup>

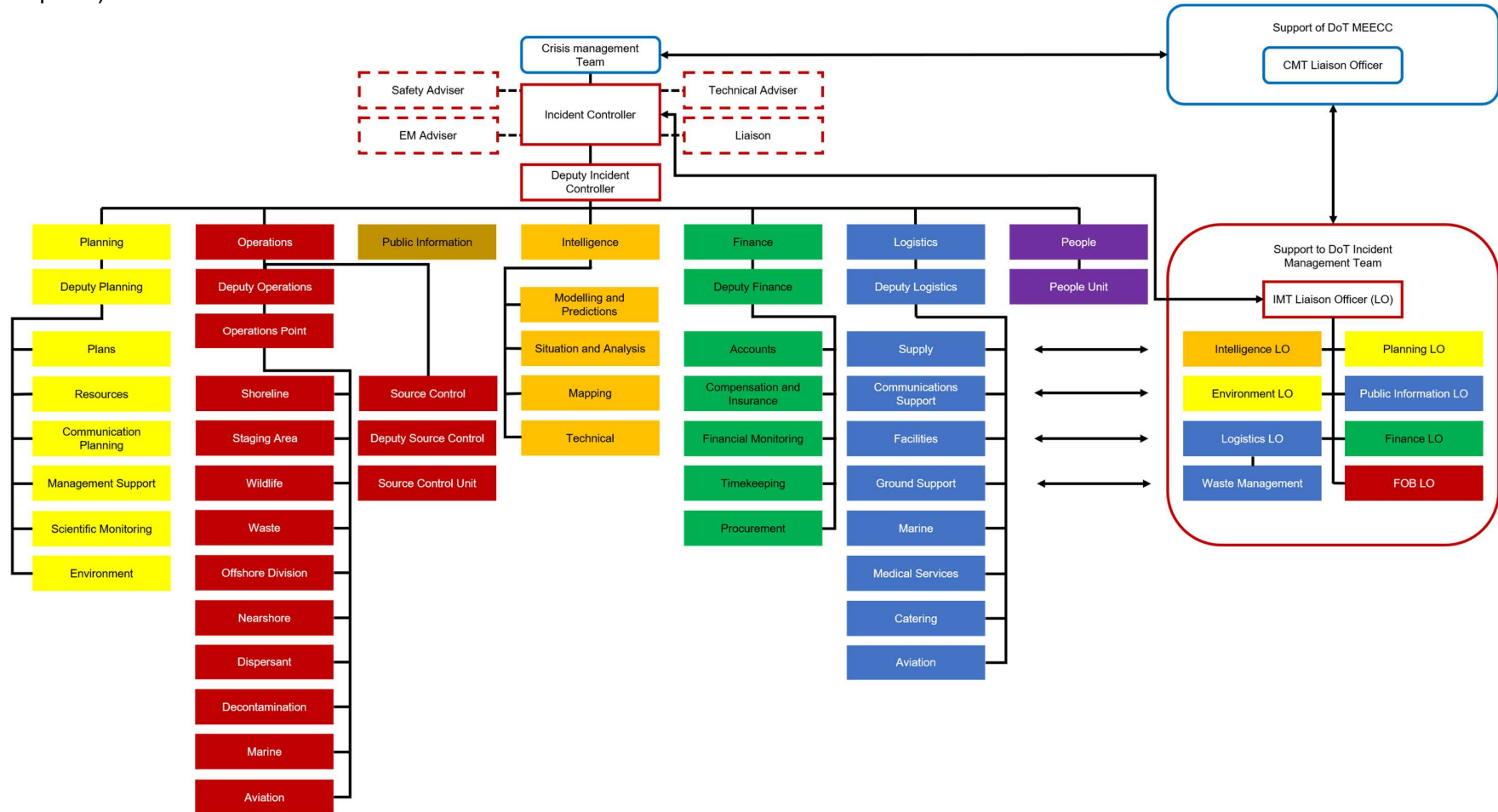


The Control Agency for a hydrocarbon spill in Commonwealth waters/shorelines resulting from an offshore petroleum activity is Woodside (the Petroleum Titleholder). The Control Agency for a hydrocarbon spill in State waters/shorelines resulting from an offshore petroleum activity is DoT. DoT will appoint an Incident Controller and form a separate IMT to only manage the spill within State waters/shorelines.

<sup>3</sup> Adapted from WA DoT Offshore Petroleum Industry Guidance Note, Marine Oil Pollution: Response and Consultation Arrangements September 2018. Note: For full structure up to Commonwealth Cabinet/Minister refer to Marine Oil Pollution: Response and Consultation Arrangements Section 6.5, Figure 4.

## APPENDIX F – WOODSIDE INCIDENT MANAGEMENT STRUCTURE

Woodside Incident Management Structure for Hydrocarbon Spill (including Woodside Liaison Officers Command Structure within DoT IMT if required).



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**APPENDIX G – WOODSIDE LIASON OFFICER RESOURCES TO DOT**

Once DoT activates a State waters/shorelines IMT, Woodside will make available the following roles to DoT.

Area	WEL Liaison Role	Personnel Sourced from <sup>4</sup> :	Key Duties	#
DoT MEECC	CMT Liaison Officer	CMT Duty Managers Roster	<ul style="list-style-type: none"> <li>Provide a direct liaison between the CMT and the MEECC.</li> <li>Facilitate effective communications and coordination between the CMT and State Maritime Environment Emergency Coordinator (SMEECC).</li> <li>Offer advice to SMEECC on matters pertaining to Petroleum Titleholder (PT) crisis management policies and procedures.</li> </ul>	1
DoT IMT Incident Control	WEL IMT Liaison Officer	CICC Duty Managers Reserve List Roster	<ul style="list-style-type: none"> <li>Provide a direct liaison between the PT IMT and DoT IMT.</li> <li>Facilitate effective communications and coordination between the PT IC and the DoT IC.</li> <li>Offer advice to the DoT IC on matters pertaining to PT incident response policies and procedures.</li> <li>Offer advice to the Safety Coordinator on matters pertaining to PT safety policies and procedures, particularly as they relate to PT employees or contractors operating under the control of the DoT IMT.</li> </ul>	1
DoT IMT Planning-Intelligence/Mapping	Intelligence Liaison Officer	AMOSC Staff Member or AMOSC Core Group	<ul style="list-style-type: none"> <li>Facilitate the provision of relevant modelling and predications from the PT IMT.</li> <li>Assist in the interpretation of modelling and predictions originating from the PT IMT.</li> <li>Facilitate the provision of relevant situation and awareness information originating from the DoT IMT to the PT IMT.</li> <li>Facilitate the provision of relevant mapping from the PT IMT.</li> <li>Assist in the interpretation of mapping originating from the PT IMT.</li> <li>Facilitate the provision of relevant mapping originating from the DoT IMT to the PT IMT.</li> </ul>	1
DoT IMT Planning-Plans/Resources	Planning Liaison Officer	AMOSC Core Group/CICC Planning Coordinator Reserve List and Planning Group 3	<ul style="list-style-type: none"> <li>Facilitate the provision of relevant IAP and sub plans from the PT IMT.</li> <li>Assist in the interpretation of the PT OPEP from the PT.</li> <li>Assist in the interpretation of the PT IAP and sub plans from the PT IMT.</li> <li>Facilitate the provision of relevant IAP and sub plans originating from the DoT IMT to the PT IMT.</li> <li>Assist in the interpretation of the PT existing resource plans.</li> <li>Facilitate the provision of relevant components of the resource sub plan originating from the DoT IMT to the PT IMT.</li> </ul>	1
DoT IMT	Environmental Liaison Officer	CMT Environmental	<ul style="list-style-type: none"> <li>Assist in the interpretation of the PT OPEP and relevant TRP plans.</li> <li>Facilitate in requesting, obtaining and interpreting environmental monitoring data originating from the PT IMT.</li> </ul>	1

<sup>4</sup> See [Combined CICC, KICC, CMT roster & Preparedness Schedule / AMOSC Service Contract](#)

Planning-Environment		FST Duty Managers Roster	<ul style="list-style-type: none"> <li>Facilitate the provision of relevant environmental information and advice originating from the DoT IMT to the PT IMT.</li> </ul>	
DoT IMT Public Information-Media/Community Engagement	Public Information and Media Liaison Officer	CMT Reputation {Media} FST Duty Manager Roster	<ul style="list-style-type: none"> <li>Facilitate effective communications and coordination between the PT and DoT media teams.</li> <li>Assist in the release of joint media statements and conduct of joint media briefings.</li> <li>Assist in the release of joint information and warnings through the DoT Information &amp; Warnings team.</li> <li>Offer advice to the DoT Media Coordinator on matters pertaining to PT media policies and procedures.</li> <li>Facilitate effective communications and coordination between the PT and DoT Community Liaison teams.</li> <li>Assist in the conduct of joint community briefings and events.</li> <li>Offer advice to the DoT Community Liaison Coordinator on matters pertaining to the PT community liaison policies and procedures.</li> <li>Facilitate the effective transfer of relevant information obtained from through the Contact Centre to the PT IMT.</li> </ul>	1
DoT IMT Logistics-Supply	Logistic Liaison Officer	CMT Services FST Logistics Team 2 Roster	<ul style="list-style-type: none"> <li>Facilitate the acquisition of appropriate supplies through the PTs existing OSRL, AMOSC and private contract arrangements.</li> <li>Collects Request Forms from DoT to action via PT IMT.</li> </ul>	1
DoT IMT Logistics-Waste	Waste Management Liaison Officer	CMT Services FST Logistics Team 2 and WEL Waste Contractor Roster	<ul style="list-style-type: none"> <li>Facilitate the acquisition of appropriate services and supplies through the PTs existing private contract arrangements related to waste management.</li> <li>Collects Request Forms from DoT to action via PT IMT.</li> </ul>	1
DoT IMT Finance-Accounts/Financial Monitoring	Finance Liaison Officer	CICC Finance Coordinator Roster	<ul style="list-style-type: none"> <li>Assist the DoT Finance Officer in time keeping and the setting up and payment of accounts for those services acquired through the PTs existing OSRL, AMOSC and private contract arrangements.</li> <li>Facilitate the communication of financial monitoring information to the PT to allow them to track the overall cost of the response.</li> </ul>	1
DoT FOB Operations Command	FOB Liaison Officer	AMOSC Core Group	<ul style="list-style-type: none"> <li>Provide a direct liaison between the PT FOB and DoT FOB.</li> <li>Facilitate effective communications and coordination between the PT FOB Operations Commander and the DoT FOB Operations Commander.</li> <li>Offer advice to the DoT FOB Operations Commander on matters pertaining to PT incident response policies and procedures.</li> <li>Assist the Senior Safety Officer deployed in the FOB in the performance of their duties, particularly as they relate to PT employees or contractors.</li> <li>Offer advice to the Senior Safety Officer deployed in the FOB on matters pertaining to PT safety policies and procedures.</li> </ul>	1
Total Woodside Personnel Initial Requirement to DoT IMT				10

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## DOT LIAISON OFFICER RESOURCES TO WOODSIDE

Once DoT activates a State waters/shorelines IMT, DoT will make available the following roles to Woodside.

Area	DoT Liaison Role	Personnel Sourced from:	Key Duties	#
WEL CMT	DoT Liaison Officer	DoT	<ul style="list-style-type: none"> <li>• Provide a direct liaison via CICC HSP Advisor between the CMT and the MEECC.</li> <li>• Facilitate effective communications and coordination between the CMT Leader and SMEEC.</li> <li>• Offer advice to CMT Leader on matters pertaining to DoT and wider government emergency management policies and procedures.</li> <li>• Provide a direct liaison between the PT IMT and DoT IMT.</li> <li>• Facilitate effective communications and coordination between the PT IC and the DoT IC.</li> <li>• Offer advice to the PT IC on matters pertaining to DoT and wider government incident response policies and procedures.</li> <li>• Facilitate requests for specific tasks from PT IMT related to Aviation and Waste Management.</li> </ul>	1
WEL Reputation FST (Media Room)	DoT Media Liaison Officer	DoT	<ul style="list-style-type: none"> <li>• Provide a direct liaison via Reputation FST Media Team between the PT Media team and DoT IMT Media team.</li> <li>• Facilitate effective communications and coordination between the PT and DoT media teams.</li> <li>• Assist in the release of joint media statements and conduct of joint media briefings.</li> <li>• Assist in the release of joint information and warnings through the DoT Information &amp; Warnings team.</li> <li>• Offer advice to the PT Media Coordinator on matters pertaining to DoT and wider Government media policies and procedures.</li> </ul>	1
Total DoT Personnel Initial Requirement to Woodside				2

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