CONTROLLED DOCUMENT

Nearshore Pipelines Oil Pollution First Strike Plan

Controlled Ref No: W0000AH9918985	Revision: 4

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REVISION HISTORY

Revision	Description	Date	Prepared by	Approved by
2	**Issued for Use – Updated with changes reflecting DoT IGN**	**21/06/2017**	**Howard Fiedler**	**Trudi Angwin**
3	**Issued for Use – Updated credible scenarios in line with MEE review**	**28/11/2017**	**Zoe Beverley**	**Trudi Angwin**
4	**Issued for Use – Updated credible scenarios in line GWA/Angel Revisions and DMIRS resubmission**	**02/02/2019**	**V Haynes**	**Trudi Angwin**

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013	Operations Superintendent Domgas – KGP_OS_DG	☐	☒
014	Operations Superintendent LNG – KGP_OS_LNG	☐	☒
015	Manager KBSF	☐	☒
016	Health and Safety Advisor KBSF	☐	☒
017	Port Operations Superintendent - PortOpsSuper	☐	☒
018	Pluto OS (PLP_OPS_OTL)	☐	☒
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028	SVP NWS	☐	☒
029	Australian Maritime Safety Authority (AMSA) C/- Marine Environment Pollution Branch, PO Box 2181, Canberra 2601 E: david.Imhoff@amsa.gov.au	☐	☒
030	WA Department of Transport C/- Matt Verney Marine Pollution Section, PO Box 402, Fremantle 6959 E: Marine.Pollution@transport.wa.gov.au	☐	☒
031	Pilbara Port Authority – Port of Dampier Port (PPA) - C/- Vikas Bangia, P O Box 285, Dampier 6713 E: Vikas.Bangia@pilbaraports.com.au	☐	☒
032	Australian Marine Oil Spill Centre (AMOSC) C/- Nick Quinn, PO Box 1497, Geelong 3220 E: nquinn@amosc.com.au	☐	☒

NEARSHORE PIPELINES OIL POLLUTION FIRST STRIKE PLAN

This plan should be activated in the event of a hydrocarbon spill emergency.

Note: Safety of all personnel takes precedence in any response to an oil spill.

Location	Incident	Hazard Management Agency / Jurisdictional Authority	Controlling Agency	
			Level 1	Level 2/3
WA State Waters	Marine Transport Emergency	Marine Safety General Manager, DoT	DoT	DoT
	Offshore Petroleum Activity Marine Oil Pollution	Marine Safety General Manager, DoT	Petroleum Titleholder	DoT[1]
	Vessel Marine Pollution	Marine Safety General Manager, DoT	DoT[2]	DoT
Port Authority (PA) waters	Marine Transport Emergency	Marine Safety General Manager, DoT	PA	PA/DoT[3]
	Offshore Petroleum Activity Marine Oil Pollution	Marine Safety General Manager, DoT	Petroleum Titleholder	DoT
	Vessel Marine Pollution	Marine Safety General Manager, DoT	PA	PA/DoT
Shipping and Pilotage Port (SPA) Waters	Marine Transport Emergency	Marine Safety General Manager, DoT	DoT	DoT
	Offshore Petroleum Activity Marine Oil Pollution	Marine Safety General Manager, DoT	Petroleum Titleholder	DoT
	Vessel Marine Pollution	Marine Safety General Manager, DoT	DoT	DoT

Table 1-1 – WA Maritime Environmental Emergency Arrangements

[1] In the event of a Level 2/3 incident resulting from an Offshore Petroleum activity in Australian Government waters that impacts State waters, the role of Controlling Agency will be performed by DoT for response activities in State waters. Petroleum Titleholders are to ensure they are compliant with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009, Reg 14 (8AA), (a), (b), (c) (d).

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

[3] In the event of a Level 2/3 incident in PA waters, the role of Controlling Agency may fall with the PA or DoT and will be determined by the HMA in consultation with the PA. The Controlling Agency will be the agency deemed most capable of performing the role of Controlling Agency.

1. GUIDANCE TO OIL SPILL INCIDENT LEVELS

In the event of a hydrocarbon spill during activities Woodside will notify WA DoT as per Table 1-1

Maritime Environmental Emergency Response is based on the principle of proportionate response whereby the Controlling Agency, and amount of resources mobilised, will vary according to the scale and location of the incident.

The Incident Controller has a responsibility to continually assess the incident level and regularly confirm that assessment with the State Maritime Environmental Emergency Coordinator.

If deemed appropriate, the Hazard Management Agency (HMA) may declare an emergency situation in response to a Maritime Environmental Emergency (MEE). In this instance, the incident may be referred to as an emergency.

State Hazard Plan - MEE identifies three levels of incidents as follows:

Level 1 Incidents are generally able to be resolved through the application of local or initial resources only (e.g. first-strike capacity).

Level 2 Incidents are more complex in size, duration, resource management and risk and may require deployment of jurisdiction resources beyond the initial response.

Level 3 Incidents are generally characterised by a high degree of complexity that is likely to require national and international resources.

If assessed as a Level 2 or 3 incident, the Incident Controller must make an ‘Incident Level Declaration’ to the State Maritime Environmental Emergency Coordinator.

If a Level 2 incident has the potential to escalate to a Level 3 Incident, or a Level 3 Incident is declared by the Incident Controller, the State Maritime Environmental Emergency Coordinator must contact the State Emergency Coordinator.

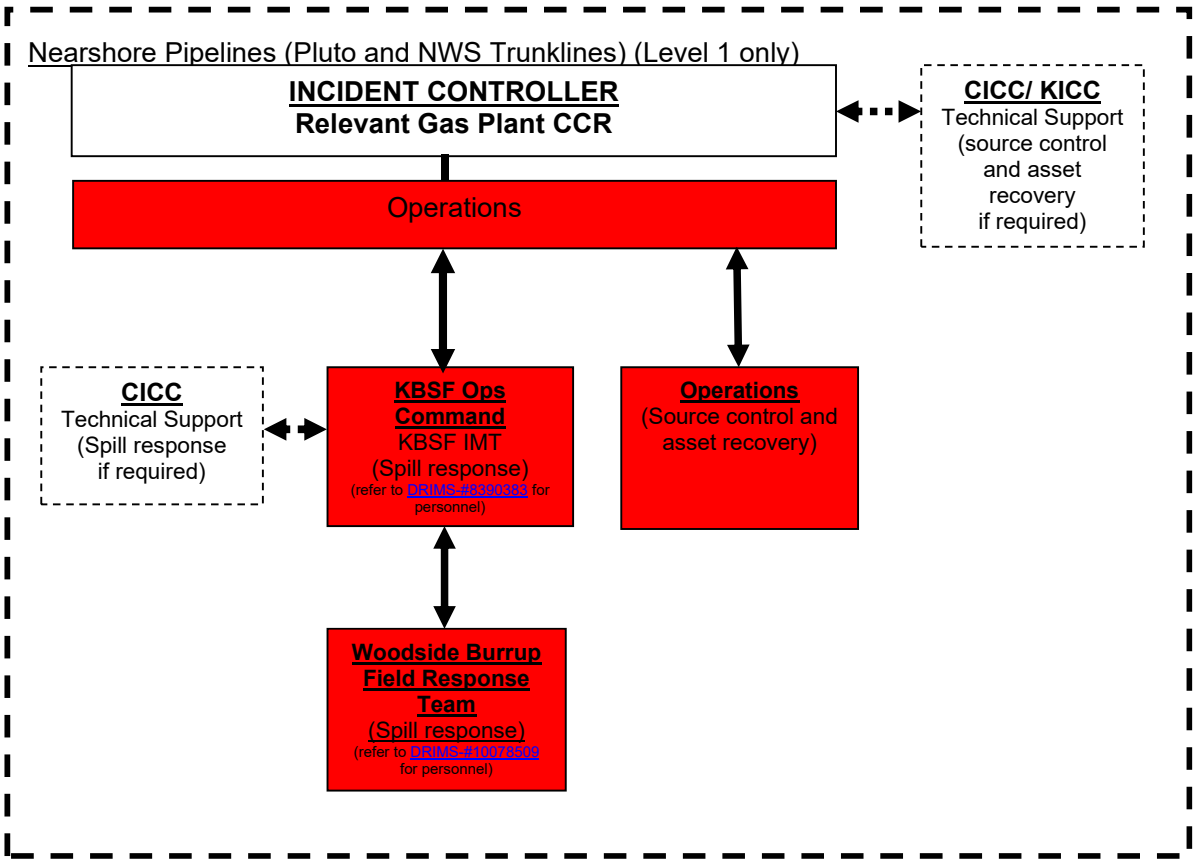
As the HMA, the Marine Safety, General Manager, DoT has overall responsibility for ensuring there is an adequate response to a marine oil pollution and/or a marine transport emergency in State waters.

The HMA is designated as the State Maritime Environmental Emergency Coordinator during an actual or impending Maritime Environmental Emergency.

The Controlling Agency has responsibility to control response activities to an actual or impending Maritime Environmental Emergency.

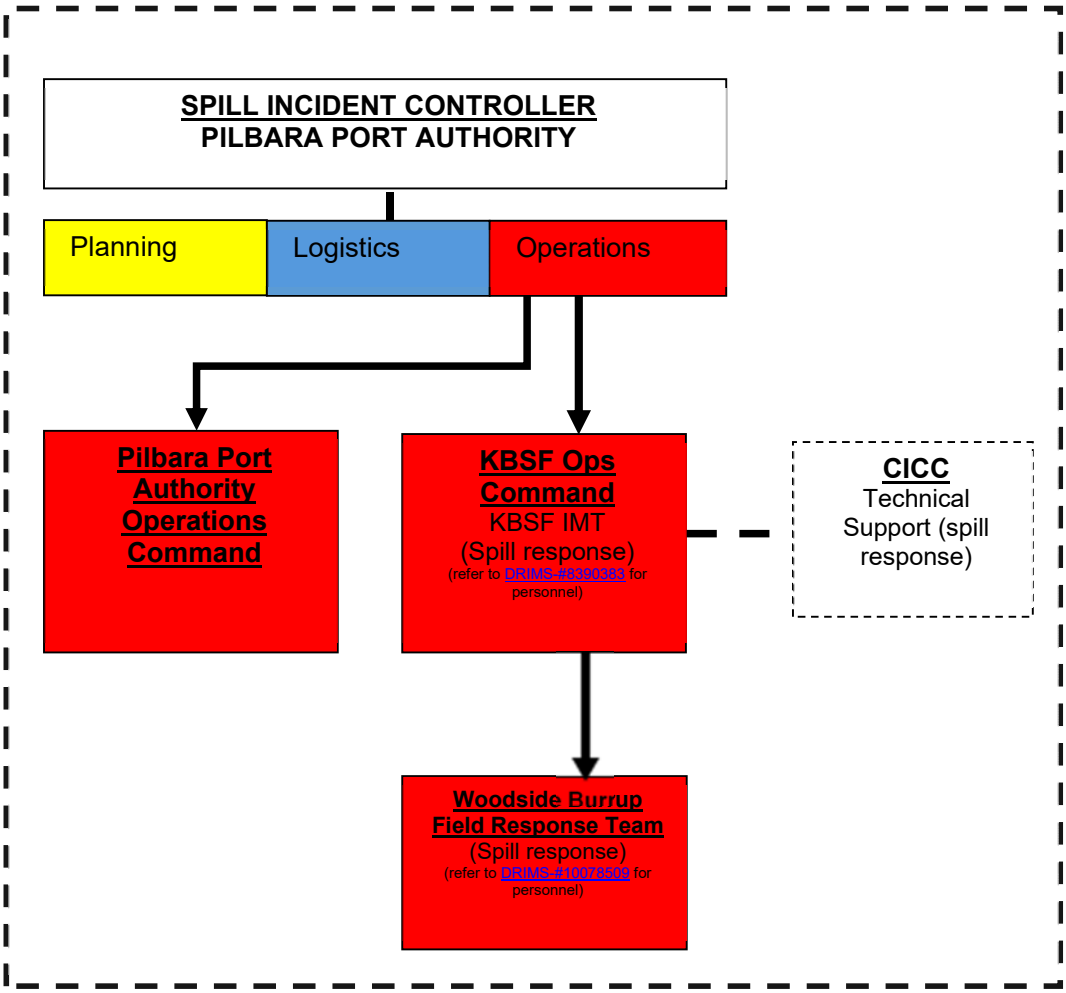
The Controlling Agency remains true to the incident initial location. If a Maritime Environmental Emergency crosses over defined waters boundaries, the Controlling Agency will remain with the original nominated agency or organisation unless otherwise appointed through agreement between the HMA / Jurisdictional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

2. WOODSIDE INCIDENT MANAGEMENT STRUCTURE FOR HYDROCARBON SPILL

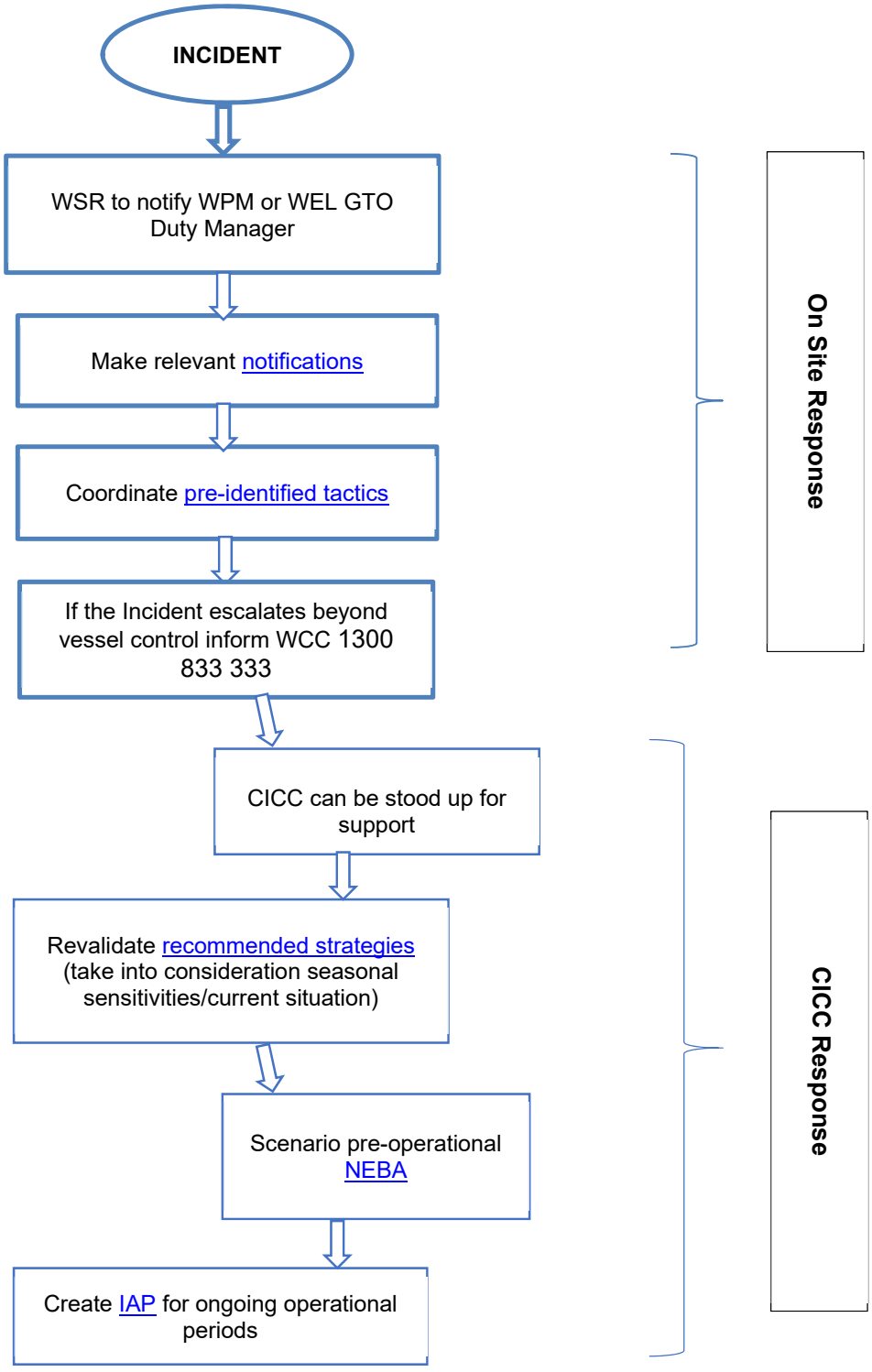


3. HYDROCARBON SPILL INCIDENT MANAGEMENT STRUCTURE LEVEL 2/3

By Arrangement with WA Department of Transport the Pilbara Port Authority (PPA) are the Control Agency for all Level 2/3 spills in port waters.



4. WOODSIDE RESPONSE PROCESS OVERVIEW



5. NOTIFICATIONS (ALL LEVELS)

The Incident Controller or delegate must ensure the below notifications (**Table 5-1)** are completed within the designated timeframes.

Table 5-1: Notifications

Notification timing	Authority /Company	Name	Contact Number	Instruction	Form/ Template	Mark Complete (✓)
Immediately	Woodside Communication Centre (WCC)	Duty Manager	1300 833 333 or Sat phone: +870 776 624 035	Verbally notify WCC of event and estimated volume and hydrocarbon type. For all incidents requiring deployment of response arrangements, instruct WCC to stand up CICC to support IC.	Verbal	
Immediately	PPA (Pilbara Port Authority – Port of Dampier)	Port of Dampier Communications – 24 hours	(08) 9159 6556	Verbally notify PPA of **all spills**, estimated volume and hydrocarbon type. If the spill enters State waters/shorelines and is a Level 1, Woodside will remain the Controlling Agency. If the spill is a Level 2/3 spill then PPA (by arrangement with WA DoT) will become the Control Agency for the incident only in State waters/shorelines. PPA will appoint an Incident Controller and form a separate Incident Management Team to manage the State waters and shoreline response affected by the spill.	Verbal	
				Written report within 24 hours of a request from the duty officer.	App B Form 1	
Immediately	King Bay Supply Facility (KBSF) Duty Manager	Duty Manager	0419 954 829	Verbally notify KBSF DM of event and estimated volume and hydrocarbon type. Iinstruct KBSF DM to undertake the onsite coordination of pre-identified tactics in table 2-1 and table 3-1, as relevant (under direction of the CICC DM).	Verbal	
As soon as practicable	WA DoT	WA DOT Duty Manager	(08) 9480 9924	Verbally notify DoT of **all spills**, estimated volume and hydrocarbon type.	Verbal	

Notification timing	Authority /Company	Name	Contact Number	Instruction	Form/ Template	Mark Complete (✓)
				Written report within 24 hours of a request from the duty officer.	App B Form 1	
Within 2 hours	DMIRS (Dept. of Mines Industry Regulation and Safety)	Environment Division Duty Officer	+61 419 960 621	Verbally notify DMIRS of spills >80L. If there is no answer an initial notification should be made via email to petroleum.environment@dmirs.wa.gov.au	Verbal	
Within 3 days				Provide a written report as soon as practicable (no later than 3 days after notification).	App B Form 3	
As soon as practicable	DPAW (Dept. of Parks and Wildlife)	Duty Environment Coordinator	(02) 6274 2995	Phone Call Notification.	Verbal	
As soon as practicable	DWER (Dept. of Water and Environment Regulation)	Pollution Response Unit	1300 784 782	Phone Call Notification for discharge of waste likely to cause pollution or serious/material environmental harm (>$20,000 damage) i.e. *EP Act* s.72 notice. If not, consider courtesy notification.	Verbal	
				Follow up with written notification.	n/a	
As soon as practicable if there is potential for oiled wildlife or the spill is expected to contact land or waters managed by DBCA.	CICC DM or Delegate	Dept. of Biodiversity, conservation and Attractions (DBCA)	Duty Officer	+61 (0) 8 9219 9108	Phone call notification	Verbal
As soon as practicable	AMOSC	AMOSC Duty Manager	+61(0) 438 379 328	Notify AMOSC that a spill has occurred, and Woodside will require the stand-up of the resources and equipment consistent with the AMOSPlan and request access to the Harold E Holt storage shed. The **IC/CICC DM, CMT Leader or Oil Spill Preparedness Manager** should send the letter of Authority to AMOSC.	App B Form 4	
As soon as practicable	OSRL (Oil Spill Response Limited)	OSRL Duty Manager	+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.	App B Form 5	

Other Non-Mandated Notifications			
Authority /Company	**Contact Number**	**Comment**	**Mark Complete (✓)**
Shire of Roebourne	+61 (0) 8 9186 8555	Courtesy phone call notification.	
City of Karratha	+61 (0) 8 9186 8555	Courtesy phone call notification.	
Yarra Pilbara Fertilisers	+61 (0) 8 9183 4165	Consider courtesy call.	
Mermaid Marine	+61 (0) 417 915 566	Consider courtesy call.	
Rio Tinto	+61 (0) 8 9143 5333	Consider courtesy call.	
Water Corporation	131 375	Various obligations to notify pursuant to Burrup Peninsula Industrial Water Disposal Service Agreement.	
Dampier to Bunbury Natural Gas Pipeline	+61 (08) 9223 4300 Facsimile: (08) 9223 4301	Consider courtesy call.	

6. HYDROCARBON SPILL RESPONSE (LEVEL 1)

6.1 Mobilisation of Response Strategies

The following response strategies and pre-identified tactics have been identified from the pre-operational Net Environmental Benefits Analysis (NEBA) (DRIMS# 1400951047) as presented in the North West Shelf Trunklines State Water Environmental Plan (A1400AH9049274).

In **Table 6-1** below, for the relevant hydrocarbon type, undertake all Pre-Identified Tactics that are indicated with a 'Yes'.

Operational Plans and Tactical Response Plans (TRPs) detailed in **Table 6-1** should be used to commence the mobilisation of response resources immediately.

Table 6-1: Recommended Hydrocarbon Spill Response Summary

Strategies	Hydrocarbon Type			Actions/Pre- Identified Tactics	Responsibility/ Mark Complete (✓)	Mobilisation of resources to undertake strategy (Operational Plans)	What to protect (priority protection areas)
	Marine Diesel	Crude	Cond.				
Monitor and Evaluate (Operational Monitoring) **Note: these actions may have limited suitability for a Level 1 spill in which case visual observations to answer the following questions may be more useful:** 1) What is it? 2) Where is it? 3) How big is it? 4) Where is it going? 5) What is in the way? 6) When will it get there? 7) What's happening to it? **For more detail on the above '7 Questions of Spill Assessment', refer to Appendix C (page 29).**	Yes	n/a	Yes	Undertake initial modelling using the Rapid Assessment Oil Spill Tool and weathering fate analysis using ADIOS2 (or refer to the hydrocarbon information in Appendix A).	Planning or Intelligence to Action	Predictive Modelling of Hydrocarbons to Assess Resources at Risk (OM01 of W0000AH9329605). Planning to download immediately and follow steps.	King Bay (DRIMS-#9725454-Oil Spill Tactical Response Plan - King Bay) Withnell Bay (DRIMS-#9725500-Oil Spill Tactical Response Plan - Withnell Bay) No Name Beach/Bay (DRIMS-#9725462-Oil Spill Tactical Response Plan - No Name Bay / No Name Beach) Holden Bay (DRIMS-#9725437-Oil Spill Tactical Response Plan - Holden Bay) Marine Oil Pollution Plan Port of Dampier (https://www.pilbaraports.com.au/PilbaraPortsAuthority/media/Documents/DAMPIER/Emergency%20Response/Marine-Oil-Pollution-Plan-Port-of-Dampier.pdf).
	Yes	n/a	Yes	Send Oil Spill Trajectory Modelling (OSTM) form (Appendix B Form 3) to RPS APASA (response@apasa.com.au).	Intelligence to Action		
	Yes	n/a	Yes	Consider Instructing Aviation Duty Manager to commence aerial observations in daylight hours. Aerial surveillance observer to complete log in Appendix B Form 4.	Aviation to Action	Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02 of W0000AH9329605). Planning to download immediately and follow steps.	
	Yes	n/a	Yes	The GTO duty manager should be instructed to stand up KSAT to provide satellite imagery of the spill (via WCC 1300 833 333 or +61 8 93487184/ 4624 or Sat phone: +870 776 624 035).	Intelligence to Action		
	Yes	n/a	Yes	Consider the need to mobilise of resources to undertake water quality monitoring (OM03).	Planning to Action	Detecting and Monitoring for the Presence and Properties of Hydrocarbons in the Marine Environment (OM03 of W0000AH9329605).	
	Yes	n/a	Yes	Consider the need to mobilise of resources to undertake pre-emptive assessment of sensitive receptors at risk (OM04).	Planning/ Environment to Action	Pre-emptive Assessment of Sensitive Receptors (OM04 of W0000AH9329605).	
	Yes	n/a	Yes	Consider the need to mobilise of resources to undertake shoreline assessment surveys (OM05).	Planning to Action	Shoreline Assessment (OM05 of W0000AH9329605).	
Surface Dispersant	No	n/a	No	Dispersant is not recommended at shallow, nearshore/shallow water environments.			
In-situ Burning	No	n/a	No			n/a	

Strategies	Hydrocarbon Type			Actions/Pre- Identified Tactics	Responsibility/ Mark Complete (✓)	Mobilisation of resources to undertake strategy (Operational Plans)	What to protect (priority protection areas)
	Marine Diesel	Crude	Cond.				
Containment and Recovery	**No**	**n/a**	**Yes**	Recovery of oil from boomed areas, shoreline and creek area by way of Skimmers and sorbent. Collection of waste into storage units. Refer to last column or Table 4-1 for potential sensitive receptors.	Operations to Action	W0000AH9273218	
Shoreline Protection	**Possibly**	**n/a**	**Yes**	Under take booming activities to prevent oil from moving into key sensitive areas. Refer to last column or Table 4-1 for potential sensitive receptors.	Operations to Action	W0000AH9273007 Activate Security support plan to protect TRP locations	
Shoreline Clean-up	**Possibly**	**n/a**	**Possibly**	Pre-clean beach areas to assist with management of oiled shoreline	Operations to Action	W0000AH9271962	
				Recover oil from boomed areas, shoreline Refer to last column or Table 4-1 for potential sensitive receptors.	Operations to Action		
Oiled Wildlife Response	**Possibly**	**n/a**	**Possibly**	If oiled wildlife is a potential risk, request AMOSC to mobilise containerised oiled wildlife wash facility and relevant personnel. Refer to relevant TRP in last column or Table 4-1 for potential wildlife at risk.	OWR Coordinator to Action	W0000AH9329605	
Scientific Monitoring	**Yes**	**n/a**	**Yes**	Notify Woodside science team of spill event.		W0000AH9310160	

EQUIPMENT RESOURCES:

First strike equipment – Woodside equipment is positioned in King Bay Supply Facility (KBSF), Marine shed. Upon request, security will provide the key to office and marine shed.

Additional equipment - Woodside equipment is positioned in KBSF, Marine shed with support from:

- AMOSC – Fremantle & Geelong equipment stock piles
- AMSA - Dampier & Fremantle equipment stock piles

Upon request, security will provide the key to KBSF office and marine shed.

For specific equipment requirements, refer to the relevant TRP in last column above or in Table 4-1.

The selection of strategies may vary after the First Strike Response has taken place and situational awareness has increased to the level that an Incident Action Plan (IAP) can be developed.

7. HYDROCARBON SPILL RESPONSE (LEVEL 2/3)

7.1 Mobilisation of Response Strategies

The following response strategies and pre-identified tactics have been identified from the pre-operational Net Environmental Benefits Analysis (NEBA) (DRIMS# 1400951047) as presented in the North West Shelf Trunklines State Water Environmental Plan (A1400AH9049274).

In **Table 7-1** below, for the relevant hydrocarbon type, undertake all Pre-Identified Tactics that are indicated with a 'Yes'.

Operational Plans and Tactical Response Plans (TRPs) detailed in **Table 7-1** should be used to commence the mobilisation of response resources immediately.

Table 7-1: Level 2/3 Recommended Hydrocarbon Spill Impact Mitigation Strategies

Strategies	Hydrocarbon Type			Pre- Identified Tactics	Responsibility/ Mark Complete (✓)	Mobilisation of resources to undertake strategy (Operational Plans)	What to protect (priority protection areas)
	Marine Diesel	Crude	Cond.				
Monitor and Evaluate (Operational Monitoring)	Yes	n/a	Yes	Undertake initial modelling using the Rapid assessment oil spill tool and weathering fate analysis using ADIOS (or refer to the hydrocarbon information in Appendix A).	Environment/ Intelligence to Action	Predictive Modelling of Hydrocarbons to Assess Resources at Risk (OM01 of W0000AH9329605).	King Bay (DRIMS-#9725454-Oil Spill Tactical Response Plan - King Bay) Withnell Bay (DRIMS-#9725500-Oil Spill Tactical Response Plan - Withnell Bay) No Name Beach/Bay (DRIMS-#9725462-Oil Spill Tactical Response Plan - No Name Bay / No Name Beach) Holden Bay (DRIMS-#9725437-Oil Spill Tactical Response Plan - Holden Bay) Marine Oil Pollution Plan Port of Dampier (https://www.pilbaraports.com.au/PilbaraPortsAuthority/media/Documents/DAMPIER/Emergency%20Response/Marine-Oil-Pollution-Plan-Port-of-Dampier.pdf).
	Yes	n/a	Yes	Send Oil Spill Trajectory Modelling (OSTM) form (Appendix B Form 6) to RPS APASA (response@apasa.com.au).	Intelligence to Action		
	Yes	n/a	Yes	Instruct Aviation Duty Manager to commence aerial observations in daylight hours. Aerial surveillance observer to complete log in Appendix B Form 7.	Aviation to Action	Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02 of W0000AH9329605).	
	Yes	n/a	Yes	The GTO duty manager should be instructed to stand up KSAT to provide satellite imagery of the spill (via WCC 1300 833 333 or +61 8 93487184/ 4624 or Sat phone: +870 776 624 035).	Intelligence to Action		
	Yes	n/a	Yes	Consider the need to mobilise of resources to undertake water quality monitoring (OM03).	Planning to Action	Detecting and Monitoring for the Presence and Properties of Hydrocarbons in the Marine Environment (OM03 of W0000AH9329605).	
	Yes	n/a	Yes	Consider the need to mobilise of resources to undertake pre-emptive assessment of sensitive receptors at risk (OM04).	Planning / Environment to Action	Pre-emptive Assessment of Sensitive Receptors (OM04 of W0000AH9329605).	
	Yes	n/a	Yes	Consider the need to mobilise of resources to undertake shoreline assessment surveys (OM05).	Planning to Action	Shoreline Assessment (OM05 of W0000AH9329605).	
Surface Dispersant	No	n/a	No	Dispersant is not recommended at shallow, nearshore/shallow water environments.			
In-situ Burning	No	n/a	No			n/a	

Strategies	Hydrocarbon Type			Pre- Identified Tactics	Responsibility/ Mark Complete (✓)	Mobilisation of resources to undertake strategy (Operational Plans)	What to protect (priority protection areas)
	Marine Diesel	Crude	Cond.				
Containment and Recovery	**No**	**n/a**	**Yes**	Recovery of oil from boomed areas, shoreline and creek area by way of skimmers and sorbent. Collection of waste into storage units. Refer to last column or Table 4-1 for potential sensitive receptors.	Logistics to Action	W0000AH9273218 Logistics to download immediately and follow steps	
Shoreline Protection	**Possibly**	**n/a**	**Yes**	Under take booming activities to prevent oil from moving into key sensitive areas. Refer to last column or Table 4-1 for potential sensitive receptors.	Logistics to Action	W0000AH9273007 Logistics to download immediately and follow steps Activate Security support plan to protect TRP locations	
Shoreline Clean up	**Possibly**	**n/a**	**Yes**	Pre-clean beach areas to assist with management of oiled shoreline	Logistics to Action	W0000AH9271962 Logistics to download immediately and follow steps Activate Security support plan to protect TRP locations	
				Recover oil from boomed areas, shoreline Refer to last column or Table 4-1 for potential sensitive receptors.	Logistics to Action		
Oiled Wildlife Response	**Possibly**	**n/a**	**Yes**	If oiled wildlife is a potential risk, request AMOSC to mobilise containerised oiled wildlife wash facility and relevant personnel. Refer to relevant TRP in last column or Table 4-1 for potential wildlife at risk.	OWR Coordinator to Action	W0000AH9329605	
Scientific Monitoring	**Yes**	**n/a**	**Yes**	Notify Woodside science team of spill event.		W0000AH9310160	

EQUIPMENT RESOURCES:
First strike equipment – Woodside equipment is positioned in King Bay Supply Facility (KBSF), Marine shed. Upon request, security will provide the key to office and marine shed.
Additional equipment - Woodside equipment is positioned in KBSF, Marine shed with support from:

- AMOSC – Fremantle & Geelong equipment stock piles
- AMSA - Dampier & Fremantle equipment stock piles

Upon request, security will provide the key to KBSF office and marine shed.

For specific equipment requirements, refer to the relevant TRP in last column above or in Table 4-1.

The selection of strategies may vary after the First Strike Response has taken place and situational awareness has increased to the level that an Incident Action Plan (IAP) can be developed.

8. OPERATIONAL AREA

The Operational Area applicable to the scope of this EP is shown in **Error! Reference source not found.**. The area includes:

- 2TL from the MLWM to the onshore PIG trap as contained under License PL58;
- 1TL and 2TL;
- Pluto Trunkline
- An area 500 m on either side of the infrastructure from the MLWM to the boundary of the Western Australian Territorial Sea and Commonwealth adjacent area (~3 nm offshore).

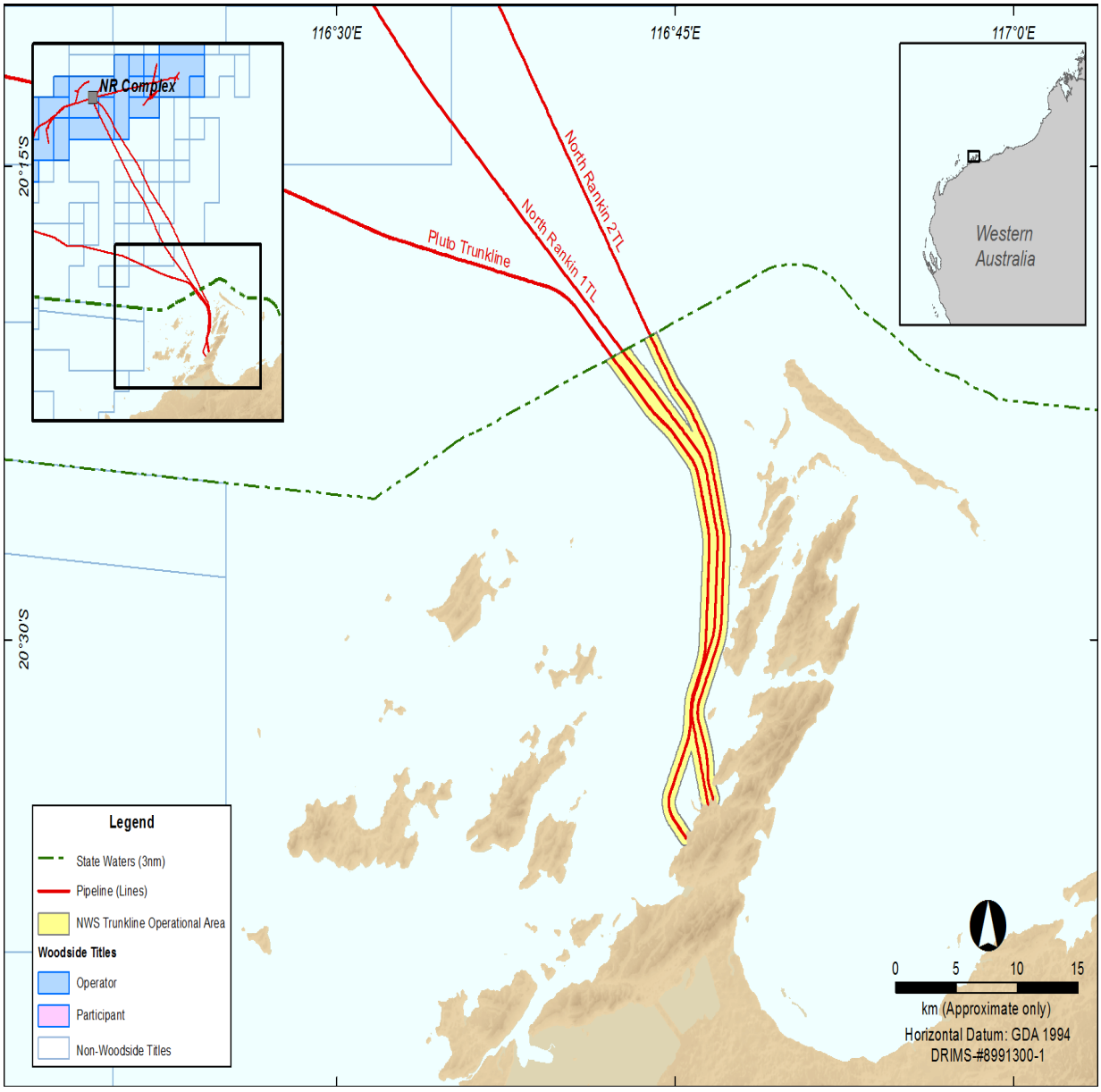


Figure 8-A Operational Area

9. PRIORITY RECEPTORS

Based on hydrocarbon spill risk modelling* results the sensitive receptors outlined in **Table 4-1** are identified as priority protection areas, as they have the potential to be contacted by hydrocarbon at or above threshold levels within 48 hours of a spill.

*Based on APASA (2018) Pluto Operations Environment Plan Quantitative Spill Risk Assessment

Table 4-1 Priority protection areas.

Receptor	Tactical Response Plans (Available within the Data Directory DRIMS#9542566)
King Bay	DRIMS-#9725454-Oil Spill Tactical Response Plan - King Bay
Withnell Bay	DRIMS-#9725500-Oil Spill Tactical Response Plan - Withnell Bay
No Name Beach No Name Bay	DRIMS-#9725462-Oil Spill Tactical Response Plan - No Name Bay / No Name Beach
Holden Bay	DRIMS-#9725437-Oil Spill Tactical Response Plan - Holden Bay
Port of Dampier Marine Oil Pollution Plan	https://www.pilbaraports.com.au/PilbaraPortsAuthority/media/Documents/DAMPIER/Emergency%20Response/Marine-Oil-Pollution-Plan-Port-of-Dampier.pdf

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

- Flying Foam and Searipple Passages
- Dampier Town Beach
- Rosemary Island
- East and West Lewis Islands
- Conzinc Bay
- Malus Islands

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

Figure 9-A and Figure 9-B illustrate the location of regional sensitive receptors in relation to Woodside's Nearshore Pipelines.

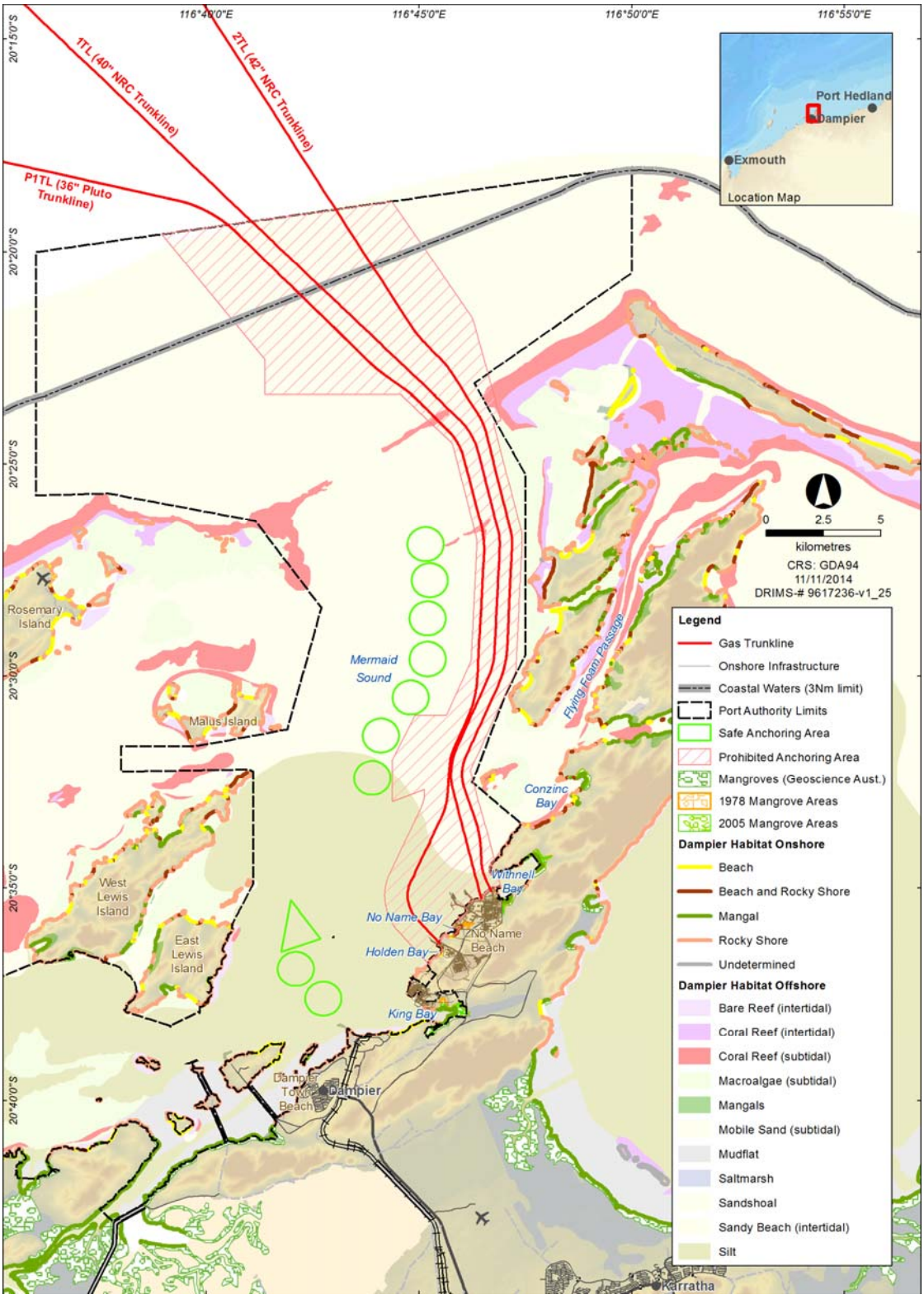


Figure 9-A Regional Sensitive Receptors – Nearshore Pipelines Priority Protection Areas

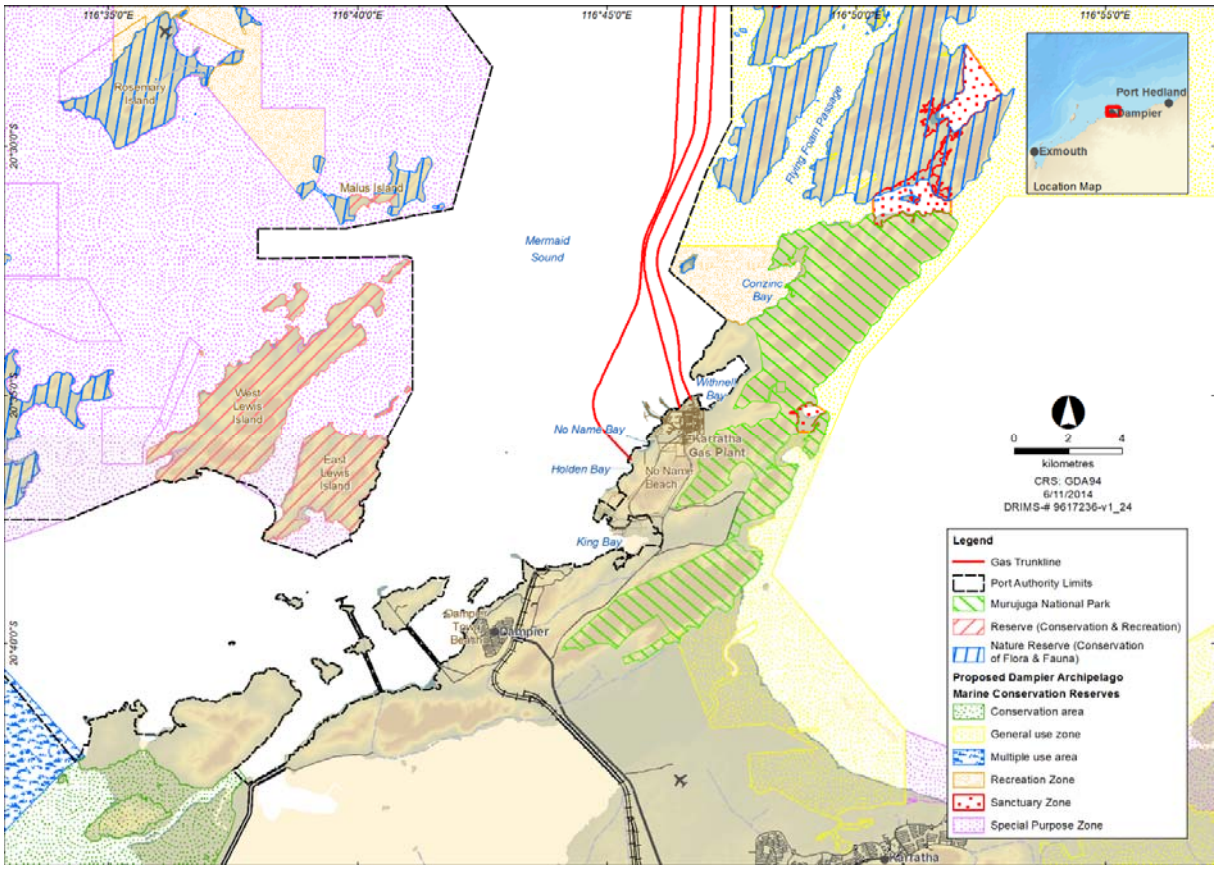


Figure 9-B Regional Sensitive Receptors – Nearshore Pipelines Protected Marine Areas

10. DISPERSANT APPLICATION

Dispersant is not considered an appropriate response strategy for this activity as described in the North West Shelf Trunklines State Water Environmental Plan (A1400AH9049274).

APPENDIX A – CREDIBLE SPILL SCENARIOS AND HYDROCARBON INFORMATION

***For more detailed hydrocarbon information see the Data Directory (*DRIMS#9542566)[4]**

Credible Spill Scenarios

Scenario	Product	Maximum Volumes	ADIOS2 Analogue
Pipeline release (Pluto trunkline)	Pluto Condensate (Un-stabilised)	Pluto Trunkline 1,800 m^3 condensate (of 105,000 m^3 inventory loss)	NWS Condensate API 62.6 (note Pluto Condensate has API of 60.2)
Pipeline release (NWSV 1TL)	NWS Condensate	9,000 m^3 condensate	NWS Condensate API 62.6
Pipeline release (NWSV 2TL)	NWS Condensate	8,090 m^3 condensate	NWS Condensate API 62.6
Hydrocarbon release caused by loss of marine diesel from support vessel	Marine Diesel Oil	130 m^3 MDO	Diesel Fuel Oil (Southern USA 1) API of 37.2

North West Shelf Condensate (Group 1 Oil) (API 62.6)

NWS condensate is a light oil and is composed mainly of short-chained hydrocarbons with 95% of the components having high to moderate volatility at typical atmospheric conditions on the North West Shelf. Testing of NWS condensate by the American Petroleum Institute (API) recorded an API specific gravity of 62.6 and a density of 0.72-0.77kg/L. Further analysis indicates that the condensate has a low concentration of aromatic hydrocarbons (0.84% by volume). The rate of condensate weathering (primarily evaporation) will depend on a number of factors, most importantly depth of the release and condensate droplet size, wind speed, water and air temperatures. Preliminary weathering laboratory data from 2012 / 2013 stabilised NWS condensate analysis is provided in Figure A-1. This data indicates 82% is lost in the first 15 minutes, with 96% lost within 24 hours. This is consistent with stochastic modelling which is typically 92 to 94% predicted to evaporate under light winds in the first day.

[4] The Control Agency for a Level 1 hydrocarbon spill in State waters/shorelines resulting from a nearshore petroleum activity is Woodside (the Petroleum Titleholder).
The Control Agency for a Level 2/3 hydrocarbon spill in State waters/shorelines resulting from a nearshore petroleum activity is Pilbara Port Authority (by arrangement with WA DoT). PPA will appoint an Incident Controller and form a separate IMT to only manage the spill within State waters/shorelines. This may require the information contained in the Data Directory to be made available to the PPA.

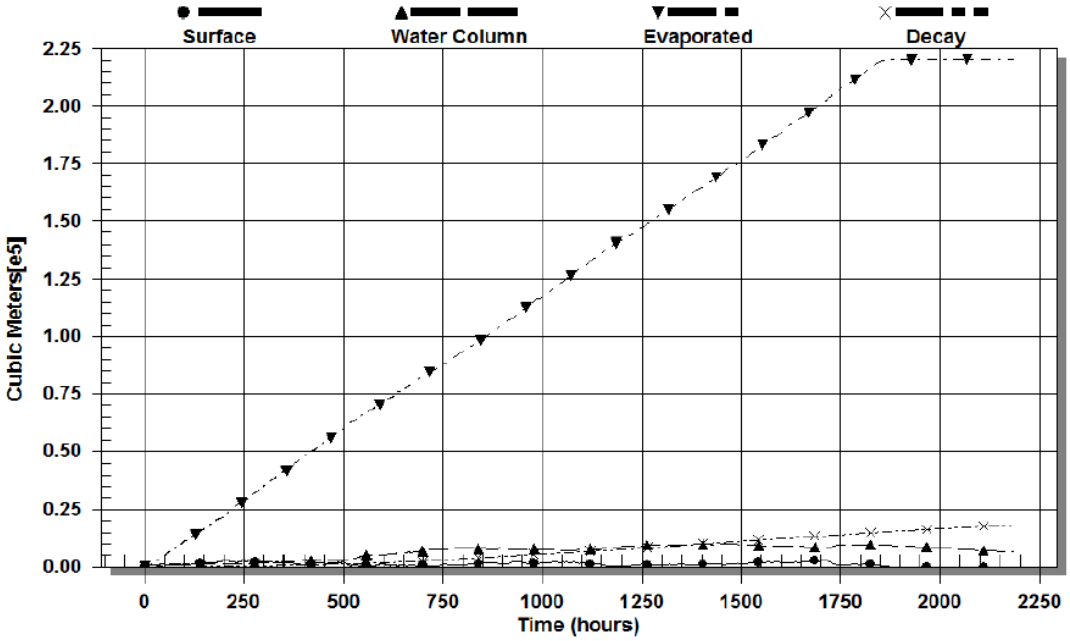


Figure A-1: Example prediction for the partitioning of oil mass over time through weathering processes for a NWS condensate surface blowout
(Source: Data available from GWA Stochastic Modelling Report, 2018)

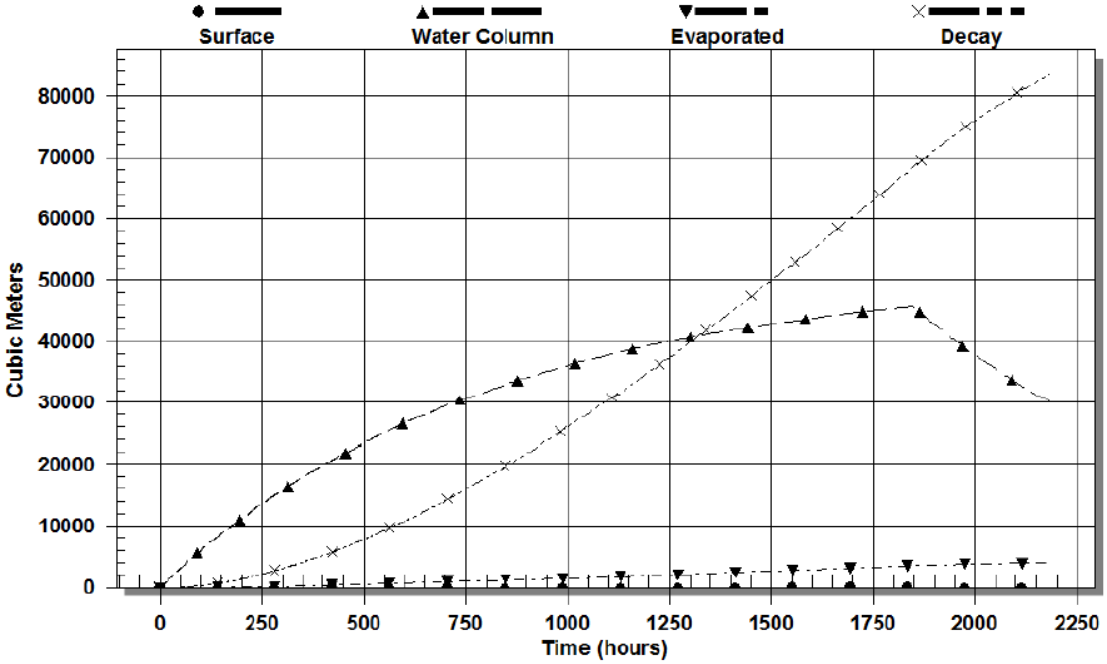
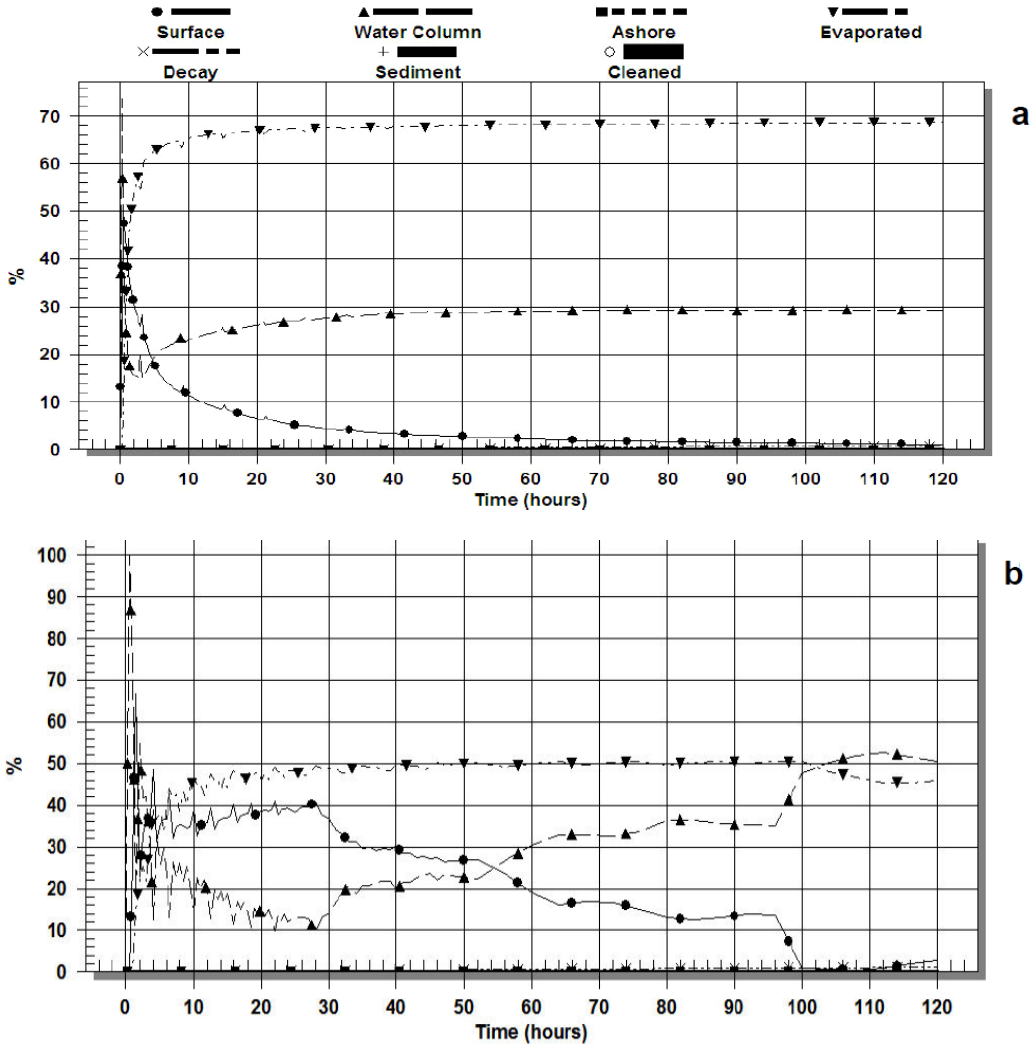


Figure A-2: Example prediction for the partitioning of oil mass over time through weathering processes for a NWS condensate seabed blowout
(Source: Data available from GWA Stochastic Modelling Report, 2018)

Pluto Condensate (Group 1 Oil) (API 60.2)

Weathering analysis applying the specifications for Pluto Condensate indicate that complete evaporation would occur within 24 hours of exposure to the atmosphere for condensate spilled onto the water surface under calm sea conditions. However, weathering rates can be significantly slowed where the condensate is entrained. Entrainment will occur where surfaced condensate is churned into the water column by breaking waves. Figure A-3 shows the predicted weathering for a surface release of Pluto condensate. The surface proportion is small, and the slick is predicted to have reduced to <2% of the released mass within the first 16 hours.



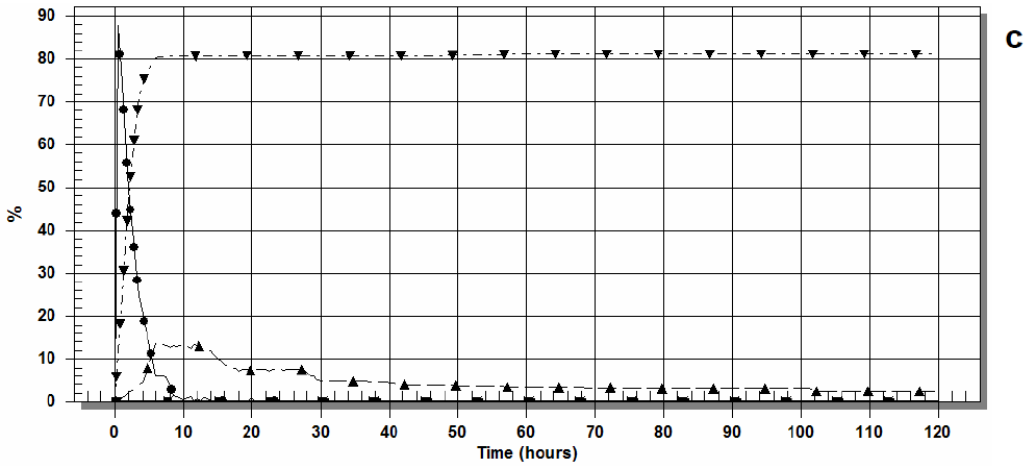


Figure A-3: Proportional mass balance plot representing the weathering of Pluto condensate

Source: Data available from APASA (2006). Hydrocarbon spill study for the Pluto LNG development. NOTE: This information is provided as guidance only. Spill event OSTM should be sought.

Marine Diesel (Group 2 Oil)

Marine diesel is a mixture of volatile and persistent hydrocarbons, with approximately 40-50% by mass predicted to evaporate over the first day or two, depending upon the prevailing conditions, with further evaporation slowing over time. The heavier components of diesel have a strong tendency to entrain into the upper water column due to wind waves, but can refloat to the surface if wind waves abate.

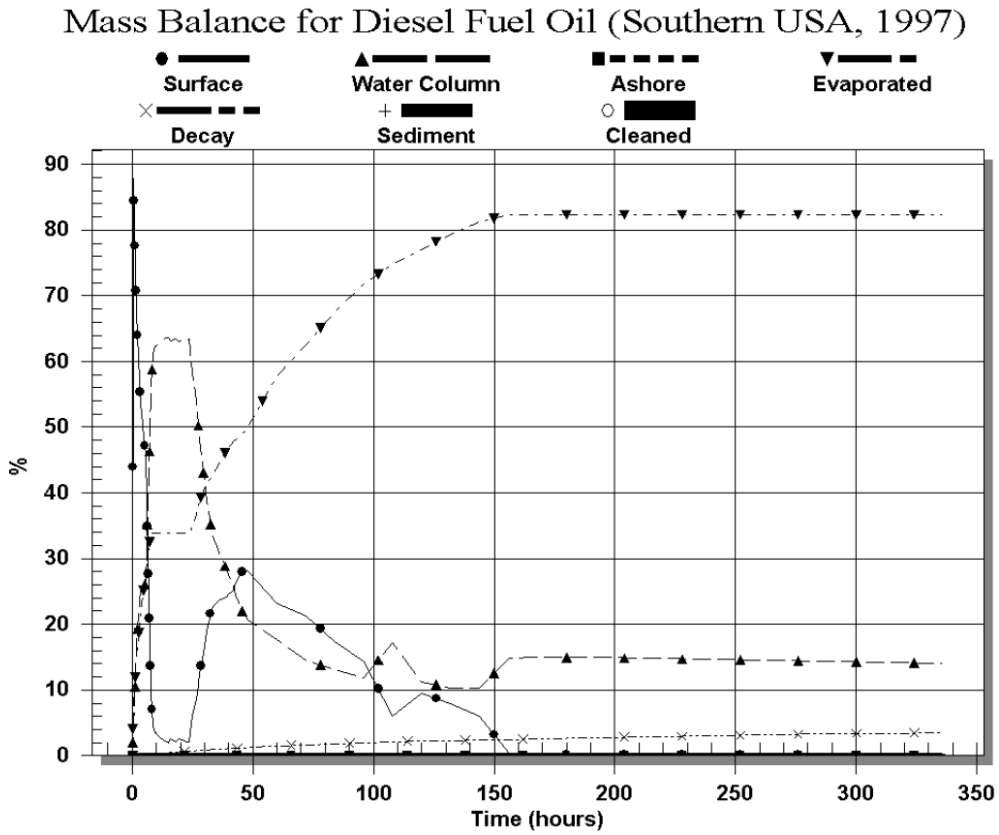


Figure A-3 Predictions for the partitioning of oil mass over time through weathering processes for diesel fuel oil. Predictions are based on sample environmental conditions.

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
1	Marine Pollution Report (POLREP – DoT) (attached on page 22-23)	http://www.transport.wa.gov.au/mediaFiles/marine/MAC-F-PollutionReport.pdf
2	Marine Pollution Report (POLREP – AMSA) (attached on page 24-25)	https://amsa-forms.nogginoca.com/public/
3	Environmental Incident Report Form (Reportable Incident Form - DMP)	http://www.dmp.wa.gov.au/Environment/Environment-reports-and-6133.aspx
4	AMOSC Service Contract	http://www.amosc.com.au/pdf/A008-004.pdf
5a	OSRL Initial Notification Form	DRIMS - #9597904
5b	OSRL Mobilisation Form	DRIMS-#9597907
6	APASA Oil Spill Trajectory Modelling Request	DRIMS# 7884771
7	Aerial Surveillance Observer Log	DRIMS# 3548723

Department of Transport

Marine Pollution Report (POLREP)

Return completed form to:
Maritime Environmental Emergency Response
Department of Transport
Email: marine.pollution@transport.wa.gov.au and rccaus@amsa.gov.au
Phone (08) 9480 9924
Fax: 1300 905 866

INCIDENT DETAILS

Date of Incident: _____ Time of Incident *(24 hr format)*: _____

Location name/description:

Incident Coordinates Latitude of spill _____ Longitude of spill _____

Format of coordinates used *(select one)* ☐ *Degrees & decimal degrees* ☐ *Degrees, minutes & decimal minutes* ☐ *Degrees, minutes & seconds*

Description of Incident:

POLLUTION SOURCE

☐ Vessel ☐ Land *(Specify)* _____ ☐ Other *(Specify)* _____ ☐ Unknown

Vessel type *(if known)* ☐ Tanker ☐ Container ☐ Bulk ☐ Cargo ☐ Fishing ☐ Defence ☐ Recreational ☐ Other *(Specify)*

Vessel name: _____ Flag State / Callsign: _____ Australian vessel? ☐ Yes ☐ No

POLLUTANT

☐ **Oil** *(type)* ☐ Bilge ☐ Diesel ☐ HFO bunker ☐ Crude ☐ Unknown ☐ Other *(Specify)*

☐ **Chemical** Name: _____ MARPOL cat / UN Nos: _____

☐ **Garbage** Details/description:

☐ **Packaged** Details/description:

☐ **Sewage** Details/description:

☐ **Other** Details/description:

EXTENT

Size of spill *(length & width in metres)*:

Amount of pollutant, if known *(litres)*:

Has the discharge stopped? ☐ Yes ☐ No ☐ Unknown

Weather conditions at site:

☐ **Photos taken** Details: _____ held by: _____

☐ **Video taken** Details: _____ held by: _____

☐ **Samples taken** Description: _____ held by: _____

☐ **Items retrieved** Description: _____ held by: _____

FORM 1

ADDITIONAL INFORMATION

Response action undertaken? ☐ Yes ☐ No If yes, provide details below, please include any environmental impact.

Equipment used? ☐ AMSA ☐ State / NT ☐ Industry

Is assistance for an investigation required from DoT ☐ Yes ☐ No

ORIGINAL REPORT SOURCE

Name: _____ Position: _____ Phone: _____

Combat agency: _____ Statutory agency: _____

SENDER DETAILS

Name: _____ Agency: _____ Date: _____

Phone: _____ Fax: _____ Email: _____

PRIVACY STATEMENT

The Department of Transport is collecting the information on this form to enable it to carry out its role as Jurisdictional Authority as per WestPlan - Marine Oil Pollution. The Department of Transport and/or AMSA may give some or all of this information to other government bodies, non-government organisations who have responsibilities under the National Plan, and law enforcement agencies.

Once you have completed the form please check that all relevant fields have been filled with accurate data.
To post the form please click on the "POST" button opposite.

POST Reset Form

mep_polrep_1114

FORM 2

Marine Pollution Report (POLREP)

NOTE: Incidents to be reported are outlined on page 3

Send completed form to: **AMSA Environment Protection**
Fax: (02) 6230 6868 Email: rccaus@amsa.gov.au

C.C.

Date of incident

Time of incident

Location name / Description

Incident coordinates

Format of coordinates used (select one)	Latitude of spill	Longitude of spill
Degrees & decimal degrees	. °	. °
Degrees, minutes & decimal minutes	° ' . '	° ' . '
Degrees, minutes & seconds	° ' . "	° ' . "

Description of incident

POLLUTION SOURCE

☐ Vessel ☐ Land ☐ Other ☐ Unknown — Details

Vessel Details: Type (if known): ☐ Tanker ☐ Container ☐ Bulk Cargo ☐ Fishing ☐ Defence ☐ Recreational

☐ Other vessel type (specify): ----------

Vessel name | Flag state / callsign | Australian vessel? ☐ Yes ☐ No

POLLUTANT

☐ Oil → ☐ Bilge ☐ Diesel bunker ☐ HFO Bunker ☐ Crude ☐ Unknown
☐ Other — Specify

☐ Chemical → Name | MARPOL Cat. / UN Nos

☐ Garbage →
☐ Packaged →
☐ Sewage →
☐ Other →
Details / description

EXTENT

Size of spill (length & width in metres)

Amount of pollutant, if known (litres)

ADDITIONAL INFORMATION

Has the discharged stopped? ☐ Yes ☐ No ☐ Unknown
Response action undertaken? ☐ Yes ☐ No If yes, provide details below, please include any environmental impact

Weather conditions at site

☐ Photos taken ▶	Details	Held by
☐ Video taken ▶	Details	Held by
☐ Samples taken ▶	Description	Held by
☐ Items retrieved ▶	Description	Held by

Original report source

Name	Position	Phone

Combat agency

Statutory agency

Equipment used
☐ AMSA ☐ State / NT

Possible further action
☐ Legal ☐ AMSA assistance ☐ Other

SENDER DETAILS

Name	Agency	Date
Phone	Fax	Email

PRIVACY STATEMENT

The Australian Maritime Safety Authority (AMSA) is collecting the information on this form to enable it to carry out its role as managing agency of the National Plan to Combat Pollution of the Sea by Oil and other Noxious and Hazardous Substances.

AMSA may give some or all of this information to other government bodies, non-government organisations who have responsibilities under the National Plan, and law enforcement agencies.

APPENDIX C – 7 QUESTIONS OF SPILL ASSESSMENT

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

APPENDIX D – WOODSIDE INCIDENT MANAGEMENT STRUCTURE

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