10 IMPLEMENTATION STRATEGY

10.1 Introduction

The implementation strategy for this EP has been developed to comply with the requirements of section 22(1) of the OPGGS(E) and describes the specific measures and arrangements that will be implemented for the duration of the activity to ensure that:

- All environmental impacts and risks of the activity will be continually identified and reduced to a level that is ALARP.
- Control measures detailed in the EP are effective in reducing the environmental impacts and risks of the activity to ALARP and acceptable levels.
- EPOs and EPSs set out in the EP are met.
- Arrangements are in place to respond to, and monitor impacts of, oil pollution emergencies.
- Relevant person consultation is maintained throughout the activity as appropriate.

10.2 HSE management system

The Eureka 3D MSS will be conducted under the framework of the Pilot Environment and HSE Policies (Appendix A), Pilot Environmental Management Procedure, the survey vessel's HSE MS, and other relevant procedures and plans.

The seismic activity will also operate under a project specific HSE plan that Pilot and the vessel operator will develop for the Eureka 3D MSS. The Project HSE Plan is a tailored document that ensures Pilot's environmental management standards and intended performance outcomes are achieved at operational level throughout the activity, while identifying and enabling the selected seismic contractors' own procedures to be utilised where appropriate. The Project HSE Plan will incorporate regulatory and client environmental requirements including procedures for the following:

- Emergency response
- Waste management
- Hazardous materials and handling
- Fuel/oil spills.

The seismic contractor's vessel HSE documentation will be reviewed for compliance with the relevant requirements described in this EP prior to the commencement of the activity. In the event of a gap between the existing plans and procedures and the requirements of this EP, the project HSE plan will ensure all control measures are adequately covered in the implementation of the EP.

10.2.1 EP Management of change and revision (Section 22(2))

Management of changes (MoC) relevant to this EP will be managed in accordance with Sections 18, 19 and 39 of the OPGGS (E) Regulations. Changes will be assessed and managed in relation to the requirements of the OPGGS(E) Regulations, including whether any of the following requirements are potentially compromised or triggered:

- Section 18 "Operations must comply with the accepted environment plan"
- Section 19 "Operations must not continue if new or increased environmental risk identified"
- Section 39 "Revision because of a change, or proposed change, of circumstances or operations".

Pilot understands the importance of proper application of change management processes and robust documentation of MOC procedures, particularly so that ALARP and acceptability can continue to be demonstrated throughout the survey

and the life of the EP. Pilot's MoC Procedure is consistent with these priorities, and Pilot will continue to implement this procedure to ensure changes are managed in a controlled manner.

Minor changes where a review of the activity and the environmental risks and impacts of the activity do not trigger a requirement for a formal revision under section 39 of the OPGGS (E) Regulations, will be considered a 'minor revision'. Minor administrative changes to this EP, where an assessment of the environmental risks and impacts is not required (e.g., document references, phone numbers, etc.), will also be considered a 'minor revision'.

10.2.1.1 Triggers for MoC

For the Eureka 3D MSS, the following activities will trigger a MoC process which will need to be approved by the Pilot Project Manager:

- A new scope (e.g., timing, location or changes to operational details such as vessel type, equipment, processes or procedures), which has the potential to impact on the environment not assessed for environmental impact previously or authorised in existing management plans and procedures
- Change to the existing activity, scope, equipment, process or procedures which have the potential to impact on the environment or interface with an environmental receptor
- Changes in the external environment managed and monitored by the Project Manager
- Provision of new information that differs to that included in this EP, such as:
  - Potential changes in scientific knowledge regarding impacts and risks from seismic activities
  - New environmental sensitivities within or adjacent to the survey area
- Changes to EPBC Act listed Threatened and Migratory species status or Part 13 statutory instruments (recovery plans, threat abatement plans, conservation advice, wildlife conservation plans)
- Issue of new regulatory requirements (e.g., AMP Management Plans)
- Identification of new relevant person objections or claims that are assessed to have merit
- Non-conformances (audits, inspections, etc.) which identify control measures may no longer manage environmental impact/risk to ALARP or acceptable criteria. Non-conformances are monitored by the Pilot Client Site Representative and the Environment Advisor
- Incidents which identify new or increased impacts and risks arising from activities not previously identified in the accepted EP. Incidents are monitored by the Client Site Representative and Environment Advisor
- Reduced ability to effectively implement the EP to meet its stated performance standards (e.g., MFO taken ill and demobilised)
- Potential new advice from external relevant persons (Section 0).

A review of the Eureka 3D MSS EP will be undertaken in the pre-mobilisation phase to ensure that any changes to legislation, science, relevant person requirements or other management requirements are fully accounted for and assessed.

10.2.1.2 MoC process

Once potential changes have been identified that trigger a MoC, the following steps will be initiated and documented in accordance with Pilot's Management of Change Procedure (Doc. PE-03-PRO-002):

- Stop work, or delay commencement of new activity
- A risk and impact assessment performed, using the same procedures as outlined in Section 6. This will determine if the increase in risk is significant and would therefore trigger a requirement to revise and resubmit the EP under Section 39
- If resubmission is required, work or new activity is to be suspended until the revised EP is accepted by NOPSEMA
- If resubmission not required, conduct and document detailed risk and impact assessment in a MoC register
- Consult relevant persons if changes may affect their activities or interests (based on previous feedback)
- Develop any additional control measures required to reduce risks and impacts to ALARP and ensure they are acceptable
- Update EP implementation plan/strategy as necessary.

Work on new or modified activities that do not trigger a Section 39 resubmission will only recommence on the authority of the Project Manager.

10.3 Roles and responsibilities (Section 22(3))

Key roles and responsibilities for Pilot and contractor personnel in relation to implementation, management and review of this EP are described below (Table 10-1). Roles and responsibilities for environmental management during the activity are a combination of generic/standard professional duties, such as complying with shipboard garbage management procedures, complemented by project-specific requirements arising from this EP, such as regulator-specific reporting arrangements Pilot will ensure that all personnel are suitably trained and competent in their respective roles (Section 0). Roles and responsibilities for oil-spill incidents are outlined in 10.7.1 The roles and responsibilities of key shore-based and vessel-based project members are summarised in Table 10-1.

Table 10-1: Eureka 3D MSS roles and key environmental responsibilities

Role	Key environmental responsibilities
Onshore	
Project manager	Ensure the activity is undertaken as per the performance outcomes of the EP. Provide sufficient resources to implement management measures to achieve the performance outcomes of the EP. Manage change requests for the activity and notifying the environment advisor (EA) of any scope changes in a timely manner. Liaise with regulatory authorities as required. With the support of the EA, ensure that ongoing monitoring for potential changes that may have a bearing on the EP are undertaken Ensure environmental incident reporting meets regulatory requirements. Ensure corrective actions raised from environmental inspections/audits or incidents are closed out Review results of conformance audits conducted during the program and make recommendations where required. Ensure that all reportable incidents are reported to NOPSEMA as per requirements Ensure that all recordable incidents are reported to NOPSEMA as per requirements Liaise with contractors to ensure communication and understanding of environmental sensitivities and requirements outlined in this EP. Ensure submission of the PERR to NOPSEMA. Member of the Incident Management Team for Emergency Response
Environment advisor	Prepare environmental induction pack Track compliance of the EPOs, EPS' and MC as per the requirements of this EP Assist with the review, investigation and reporting of environmental incidents as required Assist with environmental monitoring and inspections or audits are performed as per the requirements of this EP Liaise with relevant regulatory authorities as required Assist in preparing required external regulatory reports Support the Project Manager to ensure communication of environmental responsibilities to personnel and contractors
Vessel managers - survey and supply vessels	Establishing and reviewing the annual QHSE plan for the vessel. Ensuring the vessel's conformance with all company standards, policies and procedures. Provide copies of documents, records, reports and certifications requested by Pilot are provided in a timely manner. Ensuring major incidents (Lost Time Injury and/or Hi-potential or above) are thoroughly investigated, root cause analyses performed, corrective actions completed, logged and closed out. Participation in key audits. Ownership of the vessel's HSE statistics, leading and lagging indicators and overall HSE performance.

Role	Key environmental responsibilities
	Communication of any environmental incidents or non-conformances to Pilot as soon as practicable.
	Ensuring that all relevant QHSE documentation is in place for the vessel, according to the company's QHSE Management System requirements.
Stakeholder liaison	Relevant person consultation for the activity is undertaken in a timely and thorough manner.
	Objections or claims raised by relevant persons are recorded and reported to the project manager and survey environmental adviser.
	A relevant person consultation log is maintained.
	Continuous liaison and notification carried as outlined in the EP.
Offshore	
Client site representative	Ensuring all personnel have received an environmental induction and the induction includes environmental sensitivities, control measures, specific roles and responsibilities of all vessel crew members.
	Immediately alerting the project manager of any changes in operations which could impact negatively on environmental performance or for changes in operation which alter the environmental risk profile of the activity.
	Ensuring survey operations are carried out in accordance with the control measures and EPOs adopted within this EP.
	Ensure geospatial information is uploaded and accurate and communicated to the vessel master.
	Monitoring and reporting on the conformance of all EP commitments through observations and assessments of performance against the measurement criteria.
	Communicate any environmental incidents or non-conformances to Pilot immediately.
	Ensuring incidents are fully investigated and corrective actions monitored to close-out.
	Ensuring data and records are collected for the PERR.
Survey environmental adviser	Prepare environmental induction and vessel inspection information.
	Provide a briefing to project personnel and survey vessel crew members of the environmental sensitivities of the OA, environmental management strategies, EPOs and EPSs detailed in the EP as part of the environmental induction process.
	Ensure all relevant personnel have received and understood the spatial and temporal exclusions provided in the EP in relation to charts.
	Assist with review, investigation and reporting of environmental incidents.
	Ensure environmental inspections/audits are undertaken as per the requirements of the EP.
	Maintain and advise operations manager of the status of the Corrective Action Register
	Monitor and provide evidence of conformance to the environmental commitments as outlined in this EP and ensure the Compliance Register is updated.
	Assist in preparation of external regulatory reports required for the survey, in line with environmental approval requirements and the Pilot HSE incident reporting procedures.
	Prepare a report of the overall environmental performance upon completion of the survey, including the results of audits and any incidents, and forward to the project manager.
	Collate data for and assist in the preparation of the PERR.
	Performing the role of the senior MFO.

Role	Key environmental responsibilities
Vessel masters	The survey and supply/chase vessel masters have overall responsibility for HSE management aboard their respective vessel, implement the contractor's HSE policies and procedures, and motivates employees in support of the company's HSE policies and procedures. The survey and supply/chase vessel masters comply with all requirements of maritime law and the rules and regulations as defined by national and international authorities. The survey and supply/chase vessel masters have ultimate responsibility for ensuring the safe execution of all vessel operations including: Ensure the safe execution of all operations of the survey/supply/chase vessel Overall responsibility for HSE management aboard the survey/supply/chase vessel Ensure vessel operations are being conducted in accordance with the legislative requirements and this EP, including waste management and emergency/oil spill response Ensure vessel audits, inspections, emergency drills, training, hse and inductions are undertaken as per the EP and other regulatory requirements Ensure maintenance of equipment and records meet statutory requirements, including operational discharges and emissions. Ensures geospatial information is uploaded and accurately verified with the client site representative Implement the vessel's SOPEP and OPEP procedures in the event of an oil spill (Section 8.7), including first response to an incident using the resources immediately available to the vessel Immediately notify the client site representative of any incidents/activities arising from vessel operations that are likely to have a negative impact on the performance outcomes detailed in this EP Support the client site representative in ensuring that all relevant HSE documents are understood and adhered to Report hydrocarbon or other chemical spillage to the party chief Establish and maintain radio contact with other vessels in the Eureka 3D MSS OA and adjacent waters Notify AMSA, the project manager and the vessel manager in the event of a notifiable oil spill.
Marine fauna observers	Ensure conformance with the relevant environmental performance requirements under this EP, including inspections and adequate fauna watch and implementation of EPBC Policy Statement 2.1 Part A and Part B management procedures adopted for the survey. Record any non-conformances with EPBC Act Policy Statement 2.1 management procedures adopted for the survey. Maintain and distribute records of marine fauna sightings and submitting daily and final survey sighting reports to the client site representative and project manager. Submit notification of any incidents involving vessel collision and/or equipment entanglement with marine fauna, in accordance with the EPBC Regulations. Provide environmental inductions for survey personnel (where relevant), including details of the environmental sensitivities of the OA, control measures and performance outcomes and standards detailed within this EP. Preparation of the MFO Report.
Vessel personnel	Conduct activities in a professional and safe manner with attention to good housekeeping procedures and work practices. Undertake work as advised in environmental induction. Immediately report any incidents to the vessel master. Encourage improvement in environmental performance wherever possible. Bring any marine mammal sightings to the attention of the MFOs.

10.4 Environmental performance monitoring and evaluation (Section 22(2))

10.4.1 Review of environmental performance (Section 22(5))

Pilot will monitor the performance of the control measures during the activity. Environmental performance during the survey will be reviewed by the environment advisor to ensure that:

- EPOs and EPSs are being met, reviewed and where necessary amended (to continue to reduce the environmental impacts and risks of the activity to ALARP)
- Potential non-conformances and opportunities for continuous improvement are identified and corrective actions implemented
- All environmental monitoring requirements have been met before completing the activity.

The following arrangements will be established to review the environmental performance of the activity:

- Inspections of the vessels will be carried out before and during the survey to ensure that procedures and equipment for managing routine discharges and emissions are in place to enable conformance with the EP. Records relating to seismic source emissions, vessel discharges and fuel consumption will be kept.
- The performance of key equipment as described in this EP (i.e., OIW separator) will be checked as per the vessel maintenance schedule to ensure ongoing reduction of risks and impacts to ALARP, and any potential issues (i.e. observations of poor operating condition/performance or non-conformances) are continually monitored and raised as soon as practicable
- A summary of the EP commitments for the activity will be supplied to relevant personnel aboard the survey and support/chase vessels, and implementation of the environmental performance standards will be monitored by the survey environment advisor.
- Any non-conformance with the EPSs outlined in this EP will be subject to investigation and follow-up action as detailed in Section 10.8.
- Pilot will also undertake an internal review of the environmental performance of the Eureka 3D MSS at the conclusion of the survey. The review will consider:
- An evaluation of conformance with the Compliance Register
- Improvements to the implementation strategy included within the EP
- Conformance with the Project HSE Plan, Pilot's HSE MS and the seismic vessel's HSE MS as well as Pilot's Policies, Manuals and Procedures
- The management of any non-conformances identified during the survey, including reportable and recordable incidents
- Any concerns identified by relevant persons during and after the completion of the survey, followed by appropriate liaison as required
- Outcomes of any NOPSEMA inspection reports and feedback.

10.4.2 Monitoring, auditing and management of non-conformance (Section 22(5))

10.4.2.1 Monitoring and record keeping (Section 22(6))

Pilot will undertake monitoring as per the EPOs and EPSs in Sections 7 and 8, and keep compliance records for items outlined as measurement criteria in the same sections There will be a record of emissions and discharges as required under section 22(6) of the OPGGS(E). This record will include all emissions and discharges to the air and water and can be monitored and audited against the environmental performance standards. In accordance with section 52 and 53 of the OPGGS(E), Pilot will store and maintain all versions of the EP and documents or records relevant to the EP implementation for a period of five years. Audits and inspections

Pilot will maintain a Compliance Register that will serve as an audit tool during the Eureka 3D MSS. The register will be sufficiently detailed to demonstrate that the EPOs and EPSs included in this EP have been met. The register will detail:

- The EPOs and EPSs for the Eureka 3D MSS
- Measurement criteria to enable an auditor to determine if the Eureka 3D MSS has complied with the relevant EPSs
- The person/party responsible for implementing management measures to meet the EPO.

Prior to the survey, Pilot will undertake:

- A vessel audit/inspection to confirm that the vessel management systems are consistent with the environmental management controls detailed in this EP. This will ensure that procedures and equipment for managing routine discharges and emissions are in place to enable conformance with the EP. The audit will be documented, and any corrective actions closed out
- A review of the risk of potential introduction of IMS, potentially including an inspection to confirm that the vessel does not pose an unacceptable risk of introducing IMS
- An audit of the on-board spill response capability of the seismic vessel against its SOPEP and relevant controls in this EP, to verify spill preparedness.
- A review of the WA Aboriginal Cultural Heritage Inquiry System (ACHIS) one month prior to the survey commencing to check for any new submissions under the Aboriginal Cultural Heritage Act (WA).

Due to the short duration of the survey, conformance will be monitored daily by the client site representative with inspections undertaken once per week during survey operations.

Any non-conformance with the EPS outlined in this EP will be subject to investigation and follow-up action as detailed in Section 10.8.

The findings and recommendations of audits/inspections will be documented and distributed to relevant personnel for comments. It is likely that inspections and audits will result in recommendations for improvement opportunities. The audit or inspection may also identify breaches in environmental performance. Any non-conformance is noted and communicated immediately to the client site representative and the vessel master, as well as being documented in the audit or inspection report.

HSE performance of the survey will be discussed within Pilot during management phone calls between the vessel and head office, and weekly during on-board HSE meetings.

The environmental inspection results will be included with the Post-survey Environmental review Report (PERR) submitted to NOPSEMA after completion of the survey.

10.4.2.2 Management of non-conformance

All breaches of the environmental performance are considered non-conformances (non-compliance). Non-conformances may be identified during an audit, inspection, crew observation or because of an incident.

In accordance with Pilot's Non-Conformance and Corrective Action Procedure (PE-07-PRO-003) all environmental incidents and non-conformances must be reported, assessed and classified. All EP non-conformance issues will be communicated immediately to appropriate offshore and onshore management personnel. This expectation will be reinforced at inductions, daily toolbox meetings and weekly HSE meetings. Any EP non-conformances will be investigated as per the survey contractor's and Pilot investigation procedures (Pilot's Incident Management Procedure PE-07-PRO-001). Following an investigation, remedial actions will be developed to prevent recurrence, and these actions will be tracked to completion as described below, and as per Pilot's Incident Management Procedure.

Non-conformances and associated lessons learnt are communicated to the offshore crew during daily toolbox meetings before each shift and at weekly HSE meetings on-board the vessel and implemented if appropriate.

At all times during the survey the client site representative will be on-board the survey vessel. The client site representative has the authority to stop work at any time. Survey operations will be suspended if there is a non-conformance that increases the risk of significant negative impacts to the environment, and the client site representative (or other authorised person) is not satisfied that measures are in place to avoid a repeat of the incident. Survey operations may also be stopped where the client site representative or other authorised person considers there is a legitimate risk of an HSE incident, a breach of legislative requirements or a breach of this EP.

10.5 Training and competencies (Section 22(4))

10.5.1 Training and inductions

All personnel involved with the Eureka 3D MSS will be given a project-specific environmental induction prior to commencing work. This induction will cover environmental responsibilities relevant to the duties and responsibilities of the roles described in Section 10.3 including:

- Environmental, socio-economic and cultural sensitivities and values in the ASA and OA
- Environmental and risks and potential impacts associated with the activity
- Waste management and chemical management procedures
- Emergency response and spill management procedures outlined in the OPEP and vessel SOPEP
- Procedures for marine fauna interactions (including MFO duties and obligations), including seabird capture and handling procedures.
- Roles and environmental responsibilities of key personnel on-board the survey vessel
- The importance of following procedures and using company processes to identify environmental risks and mitigation measures
- The EP importance and the monitoring and reporting on performance outcomes and standards using measurement criteria
- Procedures for reporting environmental hazards, incidents, near misses and opportunities for improvement
- Opportunities for employee communication and participation
- Prohibition on recreational fishing on all project vessels.

A record of the induction will be retained by the project manager with the endorsement of personnel who attended. All personnel are required to sign an attendance sheet to confirm their participation in and understanding of the induction. The contractor will also conduct their own company and vessel-specific inductions independently.

For oil pollutions emergencies, Table 10-2 identifies the role and the minimum training requirements for the person undertaking the role. Pilot Energy will have access to person with these qualifications for the duration of the activity either through our own staff, from our JV partners in other projects, and from subcontractors.

Table 10-2: Eureka 3D MSS IMT Roles and Relevant Competencies

IMT role	Competency
IMT Leader	Oil Spill Command and Control (IMO 3)
Logistics	Oil Spill Management Course (IMO 2)
Planning	Oil Spill Management Course (IMO 2)
Operations	N/A
Environment Unit Lead	Bachelor's degree in environmental management / science >10 years' experience in environmental management Spill Management course like IMO2 Participation in one incident management exercise every three years
Finance and Admin	Oil Spill Response Familiarisation Workshop or similar
Tactical response team leader	Oil Spill Command and Control (IMO 2)
Client site representative	None

10.5.2 Competency and ongoing awareness

The survey vessel contractor will provide marine crew who are trained and competent to undertake their respective activities on-board the vessel. All MFO personnel will be familiarised with relevant EP commitments and their responsibilities for implementing them. MFOs will have a minimum of 20 weeks previous experience (recommended by the Marine Mammal Observer Association [MMOA]) of observing for marine mammals at sea, to have gained the skills to be competent at identifying marine mammals, estimating distance, confidence in implementing mitigation actions and experience recording data, in accordance with EPBC Policy Statement 2.1 requirements.

The MFOs will provide an information session to control room operators and other essential personnel at the start of the survey regarding their fauna observation duties and the communication protocols required with the control room operators to ensure shutdowns and power downs occur efficiently.

The following activities will serve to reinforce and maintain ongoing environmental awareness of vessel personnel for the Eureka 3D MSS. Records will be produced for each of these meetings:

- Project kick-off meeting: Held at the start of the activity and reviews the contractual and HSE specifications for the activity, the scope of work, vessel specific HSE plans, environmental outcomes, performance standards and measurement criteria within this EP
- Daily progress meetings (on-board): Review all survey operations and incidents of the previous day, actions are recorded within the daily progress report. Attended by vessel master and heads of departments plus the client site representative
- Toolbox meetings: Attended by all personnel involved in a specific operation (i.e., operations involving major hazards and/or involving more than one person). This meeting reviews the activity and reinforces the adoption of control measures within this EP to prevent adverse environmental and safety impacts. Recorded within the daily progress report.

All personnel will be encouraged to communicate any concerns, suggest improvements to the control measures implemented for any task or operation during the activity and comment on any proposed changes to equipment, systems, or methods of operation of equipment, where these may have HSE implications.

10.6 Emergency response (Section 22(3))

Pilot's emergency preparedness and response arrangements are documented within the Pilot Emergency Response Procedure (PE-05-PRO-003) and will be included within the Project HSE Plan. In addition, the seismic vessel will have a vessel-specific Emergency Response Plan (ERP) and SOPEP. These documents will be reviewed by Pilot to ensure they meet the requirements for emergency and oil spill response specified within this EP.

Pilot will ensure that any subcontracted vessel operator has established systems to ensure emergency plans are developed, implemented and maintained and that these plans address those incidents that are reasonably foreseeable. Information that is considered when identifying potential emergency situations include the following:

- Results of hazard identification and impact/risk assessments
- Legal requirements
- Previous incident (including accident) and emergency experience
- Emergency situations known to have occurred in similar organisations
- Information related to accident and/or incident investigations posted on the websites of regulators or emergency response agencies.
- The Project HSE Plan contains instructions for vessel emergency, medical emergency, search and rescue, reportable incidents, incident notification and contact information to ensure that:
- All potential emergencies are identified
- Emergency response plans are documented, accessible and clearly communicated
- Roles and responsibilities are clearly defined
- Adequate equipment, facilities and trained personnel are available to respond to emergency situations to mitigate adverse consequences
- Inspection and testing of critical emergency equipment are performed
- Emergency drills and exercises are conducted to assess emergency response capacity and capabilities
- Lessons learned are communicated to the appropriate people
- Adequate treatment and medical management are available for injured employees.

10.6.1 Emergency response initiation

In the event of an Oil Spill emergency, in the first instance the survey Vessel Master will assume overall on-site command and act as the on-scene commander (OSC). In the event of a Level 2 release or above, AMSA or the WA Department of Transport (DoT) will take over control of the response in their role as Control Agency and provide direction to the OSC. All persons on-board the vessel will be required to act under the OSC's directions. The survey vessel master will maintain communications with the vessel manager and project manager and/or other emergency services in the event of an emergency.

When an oil spill emergency occurs, the initial alert will usually be made from the emergency location itself, such as from the vessel master or client site representative to the Incident Management Team (IMT), as well as to relevant Commonwealth and state agencies (such as AMSA). The IMT will be mobilised upon initial contact and emergency response will be initiated. This will be carried out by working directly with the established emergency services operating in the area. The survey and support vessel(s) will have equipment on-board for responding to emergencies including, but not limited to, medical equipment, firefighting equipment and oil spill response equipment.

Upon receiving notification of an emergency, the vessel marine crew will respond in accordance with its SOPEP. The OSC will maintain the direct link between the vessel and the IMT.

In the event of an emergency, the survey vessel master will notify the onshore vessel manager and the project manager, who will activate the IMT. Pilot will, if necessary, be ready to provide technical and tactical resources to the emergency response. The project manager will liaise with the IMT, provide support to the response as required and provide regular reports until the response is terminated.

The vessel master is responsible for implementing source control arrangements detailed in the vessel specific SOPEP.

10.6.2 Adverse weather procedures

The activity will occur between early February and the end of March, and it is unlikely that major weather events will occur, however, dissipating tropical cyclones may track down from the west coast infrequently during late summer and can have significant impacts on the coastline, causing extreme winds, storms surge, and storm waves (Eliot & Pattiaratchi 2010).

The survey vessel will receive daily weather forecasts, and should poor/bad weather be imminent, the vessel master shall implement weather monitoring to assess conditions on site. The amount of monitoring and subsequent action would be dependent on the severity of the weather front and resulting actions will comply with the vessel's ERP.

10.7 Oil pollution emergency plan (Section 22(8))

- The Eureka 3D MSS OPEP (Appendix E), which supports the individual vessel-based SOPEPs, details the interaction between contractor-related spill response plans and Pilot response arrangements. These response arrangements are consistent with, and supported by, the:
    - National Plan for Maritime Environmental Emergencies (NATPLAN): Australian Maritime Safety Authority (AMSA) – has jurisdiction and is the Control Agency for vessel spills which affect Commonwealth waters.
    - State Hazard Plan for Maritime Environmental Emergencies (State Hazard Plan): The WA Department of Transport (DoT) is the Control Agency for marine oil spills in WA state waters (DoT 2020).

The seismic and support vessels IMO-compliant SOPEPs, prepared in accordance with IMO guidelines for the development of shipboard oil pollution emergency plans (resolution MEPC.54 (32) as amended by resolution MEPC.86 (44)), include oil spill response arrangements and provisions for testing the SOPEP (oil pollution emergency drills), as required under section 22(8) of the OPGGS(E). Typical oil spill response actions for shipboard oil spills are contained in the Eureka 3D MSS OPEP.

Initial actions undertaken by a vessel in the event of a spill to limit environmental impacts, are detailed in the Eureka 3D MSS OPEP.

10.7.1 Oil pollution roles and responsibilities

The responsibility for responding to an oil spill is dependent on location and spill origin. The National Plan sets out the divisions of responsibility for an oil spill response. Table 10-3 provides guidance on the designated Control Agency and Jurisdictional Authority for Commonwealth and state waters and for vessel and petroleum activity spills. It is important to note that in Commonwealth waters vessels involved in seismic surveys are ‘vessels’ and not a petroleum activity. However, in WA waters marine seismic surveys are a petroleum activity where they are associated with exploration for hydrocarbon reservoirs or evaluation of these resources.

Within Pilot there will be an Incident Management Team (IMT) for response to hydrocarbon spills. The IMT will be made up of Pilot staff, consultants and an OSM Service Provider. Figure 10-1 illustrates the structure of the OSM Management team during the response phase. The IMT leader is ultimately accountable for managing the response operation. Depending on the event individual people may perform multiple roles. Table 10-4 identifies the roles that support the execution of the activity, the roles they may have in an oil pollution emergency, and their responsibilities in an emergency. Additional resources will be required to fill all the roles identified in the IMT noting that depending on the size and scale of the event that individuals may fulfil multiple emergency roles.

Table 10-3: Jurisdictional and Control Agencies for hydrocarbon spills

Jurisdictional boundary	Spill source	Jurisdictional authority	Control agency		Relevant documentation
			Level 1	Level 2/3	
Commonwealth waters (3 to 200 nm from territorial/state sea baseline)	Vessel [2]	AMSA	AMSA		Vessel SOPEP National Plan Eureka 3D MSS OPEP (this document)
	Petroleum activities [3]	National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA)	Titleholder		Activity OPEP
WA state waters (state waters to 3 nm and some areas around offshore atolls and islands)	Vessel	WA Department of Transport (DoT)	DoT	DoT	Vessel SOPEP SHP-MEE Oil Spill Contingency Plan (OSCP) (DoT, 2015)
	Petroleum activities	DoT	Titleholder	DoT	Eureka 3D MSS OPEP (this document) SHP-MEE

Table 10-4: Roles and Responsibilities during emergencies or potential emergencies

Day to Day Role	Oil Pollution Emergency Role	Responsibilities during emergencies or potential emergencies
Project Manager	IMT Leader	Commit resources to facilitate an emergency response strategy in the event of an incident.
		Complete the notifications detailed within the OPEP.
		Review and send incident reports to regulators and others as defined in the OPEP.
		Manage the emergency response strategy in the event of an incident.
Environment Advisor	Environment Support Officer	Manage any oil spill monitoring requirements as per the OSMP.
		Confirm the high priority protection areas.
Client Site Representative (Primary Vessel-based Contact)	Operations Lead	Immediately alert the Acquisition Operations Manager of any changes in operations, which could impact negatively on environmental performance or for changes in operation, which alter the environmental risk profile of the activity.
Vessel Masters	No change	Notify AMSA, Site Representative and Vessel Manager in the event of a notifiable oil spill or the accidental release of waste overboard.
		Implement the vessel's SOPEP procedures in the event of an oil spill, including first response to an incident using the resources immediately available to the vessel.

[2] Vessels are defined by Australian Government Coordination Arrangements for Maritime Environmental Emergencies (AMSA, 2017a) as a seismic vessel, supply or support vessel, or offtake tanker. Note: this definition does not apply to WA State waters.

[3] Includes a 'Facility', such as a fixed platform, FPSO/FSO, MODU, subsea infrastructure, or a construction, decommissioning and pipelay vessel. As defined by Schedule 3, Part 1, Clause 4 of the OPGGS Act.

	Immediately notify the Site Representative of any incidents/activities arising from vessel operations that are likely to have a negative impact on the performance outcomes detailed in this EP.

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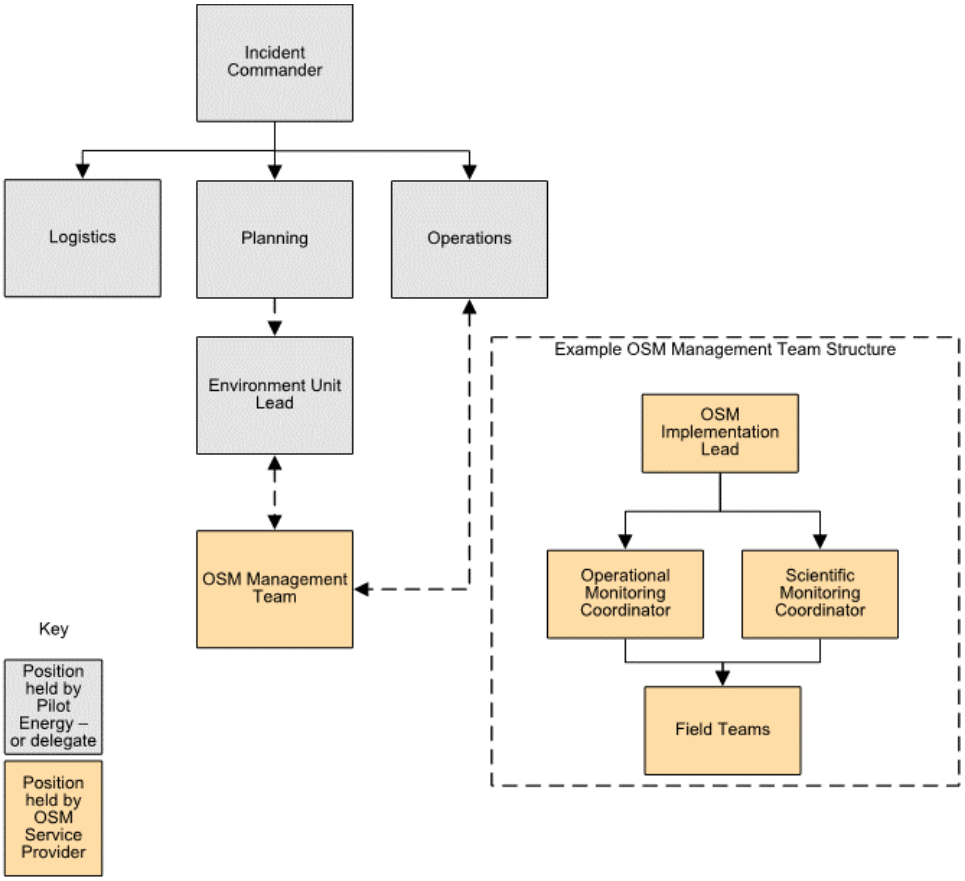


Figure 10-1: Pilot IMT structure with OSM team

The responsibilities associated with these roles can be found in Table 10-5.

Table 10-5: IMT Roles and Responsibilities

IMT role	Responsibility
IMT Leader	Responsible for ensuring that an effective immediate response is mounted and that it is ongoing until termination is determined. Supports relevant control agency
Logistics	Act as a focal point for materials and logistical requirements. Organise the supply and transportation of contractor personnel, materials and equipment required for oil spill response as required by the IMT.
Planning	Provide a focal point for developing the Incident Action Plan for sign off by the IMT if requested by control agency. Work with the control agency to get environmental and scientific inputs to the IAP. Monitor the IAP progress against the IAP objectives.
Operations	Responsible to the IMT and control agency for response operational activities
Environment Unit Lead	Advising on the environmental priorities and thorough implementation of the NEBA assessment, the preferred response options considering the significance, sensitivity and possible recovery of the resources likely to be affected. To implement the Oil Spill Monitoring Plan (operational and scientific)

Finance and Admin	Ensure Implementation of the Administration and Finance strategies
Tactical response team leader	Ensure the safety of personnel and the management of the vessel. Notifies the Pilot onsite representative of the incident Implements the SOPEP and emergency response plans
Client site representative	Represents Pilot and point of contact between IMT and tactical response team leader and vessel master.

10.7.2 Drill and training (OPEP/SOPEP)

The OPEP will be desktop tested prior to commencing the Eureka 3D MSS. This will only occur once in the immediate pre-mobilisation phase and will not be repeated during the survey as the time frame of the activity is too short for additional testing to be warranted.

The arrangements for testing the OPEP are commensurate with the nature and scale of the worst-case oil spill scenario and the short duration of the survey.

Vessel-based SOPEP tests are undertaken by vessels routinely as per MARPOL Annex I (Regulation 15) requirements, and drill outcomes reviewed as part of the ongoing monitoring and improvement of emergency response control measures.

A desktop drill of the Eureka 3D MSS OPEP, including the vessel SOPEP, will be conducted to assess the effectiveness of the arrangements, considering the nature and scale of the risk of a hydrocarbon event, prior to survey commencement. Specifically, the drill will test the following:

- Roles and responsibilities of those involved in oil spill response are clear and understood
- Communication sequence from the vessel master to vessel-contractor onshore management and the Control Agency, including notification of the AMSA JRCC is adequate, current and includes all relevant details
- Communication between the client site representative and the project manager and subsequent notification authorities is adequate and timely
- That vessel-based spill surveillance is in place and relevant people understand the tracker buoy deployment
- Equipment and procedures intended for source control on-board the vessels are available for use as outlined in the vessel SOPEP.

The outcomes of the Eureka 3D MSS OPEP drill will be documented, reviewed and improvements identified (as needed). Should any inadequacies, altered contractual arrangements or improvements to arrangements be identified via testing, these corrective actions will be registered (refer to Section 10.2.1) and if required the EP/OPEP will be amended for these items via an MoC process (refer Section 10.2). This is the responsibility of the project manager who is responsible for assessing any changes to the OPEP against the criteria in OPGGS (E) Regulations - section 39 and where necessary, the EP/OPEP submitted to NOPSEMA as a formal revision.

10.7.3 Maintaining currency

Pilot will monitor AMSA and DoT's published plans, and should the plans change, Pilot will assess the implications of any changes to the OPEP arrangements as described in this EP. Any change to the activity itself, or the potential impacts and risks associated with it, will result in a review of the EP (including the OPEP) to ensure the measures in place remain suitable and there is no significant increase in impact or risk.

10.7.4 OSMP

The Eureka 3D MSS OSMP (Appendix F), considers the nature and scale of the activity and the potential monitoring requirements of the spill risks involved (refer Section 8.6). The OSMP has the objectives to:

- Identify high priority protection areas within the EMBA in real time.

- Specify monitoring methodologies.
- Detail the process Pilot will follow to determine the monitoring studies that will be implemented to:
  - Provide situational awareness and assist in planning and execution of spill response to minimise environmental harm.
  - Provide for short-term and long-term environmental damage and recovery assessments.

10.8 Reporting (Section 22(7) and 51)

10.8.1 Environmental performance reporting

The outcomes of the environmental performance during the survey (Section 6.6) will be summarised in the PERR. The outcomes of the review will be incorporated into environmental management measures applied to future activities to further improve Pilot's environmental performance. The requirements for reporting and recording environmental performance are outlined in Table 10-6.

Table 10-6: Environmental performance reporting

Requirements	Timing
Submit an end-of-survey PERR to NOPSEMA, in accordance with section 22(7) and 51 of the OPGGS(E). This reports conformance against each of the performance outcomes and standards as outlined in Sections 7 and 8 of this EP and: A summary of all reportable and reportable incidents (if any), investigation details, corrective actions determined and actioned Monitoring records Details of all cetacean sightings (if any) A copy of the completed compliance registers for the activity, including all supporting records Inspection/audit outcomes Summary of the survey operations conducted.	Submit to NOPSEMA within three months of seismic survey completion. Provide marine fauna observation data to DCCEEW within three months of survey completion.

10.8.2 Environment incident reporting (section 24 and 47)

Under section 24 and 47 of the OPGGS(E), Pilot is required to notify NOPSEMA of any reportable and recordable incident within a specified timeframe. Environmental incidents will be reported to the relevant government agency by the client site representative. The requirements for reporting and recording incidents are outlined in Table 10-7.

Following any recordable or reportable incident, Pilot will undertake an incident investigation, and this information will be communicated to all relevant personnel. All recordable and reportable incidents will be documented in the PERR by the project manager, and including details of the event, immediate action taken to control the situation, and corrective actions to prevent reoccurrence. The project manager and client site representative will follow up actions taken to ensure that the corrective actions have been taken to close it out. When planning future activities, Pilot will review the reportable and recordable incidents that have occurred previously to incorporate any lessons learned as part of Pilot's continual improvement process.

Table 10-7: Routine and incident reporting requirements

Requirements	Timing
Recordable incident reporting	

Requirements	Timing
Legislative Definition: A "recordable incident" means "a breach of an environmental performance outcome or environmental performance standard, in the environment plan that applies to the activity that is not a reportable incident."	Submit to NOPSEMA as soon as practicable after the end of the calendar month, and in any case not later than 15-days after the end of the calendar month. Email: submissions@nopsema.gov.au.
As a minimum, the written incident report must include a description of: • a record of all recordable incidents that occurred during the calendar month • all material facts and circumstances concerning the recordable incidents • any actions taken to avoid or mitigate any adverse environmental impacts of the recordable incidents • the corrective action that has been taken, or is proposed to be taken, to stop, control or remedy the recordable incident • the action that has been taken, or is proposed be taken, to prevent similar incidents occurring in the future.	
Reportable incident – verbal notification	
Legislative definition: A reportable incident means an incident relating to the activity that has caused, or has the potential to cause, moderate to significant environmental damage.	NOPSEMA: as soon as practical and no later than two hours. Ph 08 6461 7090 submissions@nopsema.gov.au Verbal notifications must also be given as soon as is practicable to AMSA and State Agencies First contact in the event of a Level 1 or Level 2 hydrocarbon spill: AMSA: 1800 627 484 (Refer to Appendix E for details of oil spill notification and reporting requirements).
Based on the impact/risk assessments undertaken in Sections 7 and 8, Pilot considers environmental incidents that have a consequence of moderate or higher These are the identified impacts and risks that may result in a reportable incident: • Collision with large marine fauna (cetaceans, pinnipeds, marine turtles) causing injury or death. • Any Oil Spill • Introduction of invasive marine species	
Verbal notification of reportable incident must be given to NOPSEMA as soon as practicable (not later than two hours) after the occurrence of the reportable incident/after the time Pilot Energy becomes aware of the reportable incident. The verbal notification must include the following information: • All material facts and circumstances concerning the incident that the titleholder knows, or is able, by reasonable search or enquiry, to find out • Any actions taken to avoid or mitigate any adverse environmental impacts of the reportable incident • The corrective action that has been taken, or is proposed to be taken, to stop, control or remedy the reportable incident.	
Notify the Western Australian Museum if any previously unrecorded shipwrecks are found	Obligated under the *Maritime Archaeology Act 1973* to report here. No timing identified.
Notify Department of Biodiversity, Conservation and Attractions (DBCA) in the event of oiled wildlife	Managed through IMT process
Reportable incident – written notification	
As per Section 47 of the OPGGS(E), as soon as practicable after the verbal notification (and no later than 3-days after the first occurrence of the reportable incident), a written record of the notification must be provided to: • NOPSEMA • NOPTA • Department of the responsible State Minister (WA).	As soon as practicable following verbal notification to NOPSEMA Email NOPSEMA: submissions@nopsema.gov.au Email NOPTA: info@nopta.gov.au

Requirements	Timing
As per Section 48 of the OPGGS(E), this initial notification to NOPSEMA must be followed up by a written report. As a minimum, the written incident report will include: All material facts and circumstances concerning the incident that the titleholder knows, or is able, by reasonable search or enquiry, to find out: • Any actions taken to avoid or mitigate any adverse environmental impacts of the reportable incident • The corrective action that has been taken, or is proposed to be taken, to stop, control or remedy the reportable incident • The action that has been taken, or is proposed to be taken, to prevent similar recordable incidents occurring in the future.	As soon as practicable, and not later than three days following the first occurrence of the incident Email NOPSEMA: submissions@nopsema.gov.au
As per Section 48 of the OPGGS(E), within 7-days after giving a written report of a reportable incident to NOPSEMA, the titleholder must give a copy of the report to: • NOPTA • Department of the responsible State Minister (WA).	Within seven days of providing a written report to NOPSEMA Email NOPTA: info@nopta.gov.au
Notify the DCCEEW of any impacts to MNES specifically injury to or death of EPBC Act listed Threatened or Migratory species	Within seven days of the incident protected.species@environment.gov.au or compliance@environment.gov.au
Notify the DCCEEW and AMSA of a vessel strike with a cetacean	Within 72 hours of the incident. Upload information to: EPBC.Permit@dcceew.gov.au or through 1800 920 528 and via the AMSA Incident report

10.8.3 Other reporting

10.8.3.1 Oil pollution emergency plan reporting

In the event of implementation of the OPEP, Pilot will also provide any required reports to oil spill response agencies as described in Appendix E.

10.8.3.2 Marine fauna reporting

In accordance with the EPBC Act Policy Statement 2.1 a record of marine fauna interaction procedures employed during operations will be maintained. The MFO Report on the conduct of the survey, and any marine fauna sightings/interactions (including any whale-instigated shutdowns of the acoustic source) will be provided to DCCEEW within three months of the completion of the survey. The report will contain:

- The location, date and start-up time of the survey
- Name, qualifications and experience of any MFO involved in the survey
- The location/times/reasons when observations were hampered by poor visibility, low light conditions or high winds
- The location and time any start-up delays, power downs or stop work procedures instigated because of whale sightings
- The location, time and distance of any cetacean, pinniped and turtle sightings
- The date and time of completion of the survey.

The following procedures will be implemented during the survey to ensure all marine fauna sightings are properly recorded and reported:

- Detailed reports of all cetacean sightings will be recorded
- At the completion of the survey the MFO report will be provided to DCCEEW.

In the event of a collision with marine fauna a report will be made to the Secretary of DCCEEW on EPBC.Permits@dcceew.gov.au or 1800 920 528. This report will occur as soon as practicable, however no more than seven days upon becoming aware of the incident. A report to AMSA is also required through a form 18, notified within 72 hours (AMSA incident report).

10.8.3.3 AMSA reporting

In accordance with the *Navigation Act 2012*, AMSA's JRCC will be immediately notified (i.e., within one hour), by the survey vessel master (via the national 24-hour emergency hotline) by the survey vessel master in the event of:

- Any oil pollution incident in Commonwealth waters (Level 1 or 2 spill)
- Any spill greater than 10 m^3 (ten tonnes) in Commonwealth waters (Level 2 spill)
- The vessel sustaining or causing an accident, occasioning loss of life or serious injury
- The vessel receiving damage or defect which affects its seaworthiness
- Danger to navigation (e.g., a sizable piece of equipment overboard likely to float, creating a shipping hazard)
- Vessel collision with marine fauna.

10.9 Ongoing consultation (Section 42)

10.9.1 Notifications

Pilot will keep relevant persons up to date with activity status by sending periodic notifications to relevant persons. Key milestones or events that trigger a notification include:

- EP acceptance by NOPSEMA
- Prior to survey commencement
- Upon survey completion
- If the seismic vessel is required to depart the Operational Area to avoid adverse weather (notification will be communicated by the AMSA Joint Rescue Coordination Centre as a navigational safety warning)
- If there is a change to the MSS activity scope that may affect the relevant person interests, activities or functions
- If a new or significant increase in potential impact or risk is identified that (after identification of additional control measures to manage those impacts or risks) may affect the relevant person interests, activities or functions.
- In the event of any reportable incident that has the potential to affect the functions, interests, or activities of any relevant person.

All notifications will include the relevant details of the activity including the activity title, location and contact details. The routine reporting obligations that Pilot will undertake with external organisations are outlined in Table 10-8.

Table 10-8: Other EP notifications

Requirement	Timing
Routine reporting	
If survey commences >4 months after EP acceptance: Ensure any new relevant persons are identified Once the schedule has been determined, notify all relevant persons of the dates, seeking feedback regarding fishing areas/activity with respect to timing Identify alternative operating arrangements in response to feedback (and update relevant persons if required).	Pilot will undertake a review four months prior to commencement of the activity.
Send update and reminder to all relevant persons of survey including commencement date and duration, survey line plan layout, vessel communication details and protocols and contact details for further relevant person feedback. Identify alternative operating arrangements in response to feedback (and update relevant persons if required).	One month prior to activity starting.
Reminder to fisheries and fishing relevant persons of survey details and contact information for fishers to provide information on planned fishing activity.	Seven to ten day lookahead prior to survey commencement and on re-start (if survey is suspended)
Notify fisheries and fishing relevant persons on halting (i.e., suspension) and on completion of survey	Immediately upon completion
Notify all relevant persons around the operation of the survey vessel location and planned movements over the next 24 hours	Broadcast twice daily bulletins during the survey by radio, AIS and email.
Notify the Australian Hydrographic Office (AHO) of the survey commencement date and duration to enable a Notice to Mariners to be issued.	Email the AHO four weeks prior to the confirmed survey start date at: datacentre@hydro.gov.au

Requirement	Timing
Notify the AHO and AMSA (JRCC) of altered information during the survey to enable a Notice to Mariners (NTM) to be issued, in addition to progress updates	Email the AHO fortnightly (if required) to report altered information at: datacentre@hydro.gov.au and JRCC at: rccaus@amsa.gov.au
Notify the AHO on halting (i.e., suspension) and on completion of the survey.	Email the AHO on completion of demobilisation from the operational area at: datacentre@hydro.gov.au
Notify NOPSEMA of the start date of the survey in accordance with Section 54 of the OPGGS(E).	Email NOPSEMA (submissions@nopsema.gov.au) at least ten days prior to the survey starting.
Notify NOPSEMA of the end date of the survey in accordance with Section 54 of the OPGGS(E).	Email NOPSEMA (submissions@nopsema.gov.au) within ten days of completion of the survey.
Notify regulators at the end of the operation of the EP.	Within one month of survey completion. Email: submissions@nopsema.gov.au mail to: operational.report@ecodev.vic.gov.au
Notify AMSA prior to survey commencement with vessel details (including name, call sign and Maritime MMSI), satellite communications details (including INMARSAT-C and satellite telephone), area of operation and requested clearance from other vessels.	Email AMSA's JRCC 24-48 hours prior to survey commencement at: rccaus@amsa.gov.au or phone 1800 627 484
Notify AMSA to start and cease daily AUSCOAST warnings.	Email AMSA's JRCC within 24-hours of the start and completion of the survey at: rccaus@amsa.gov.au.
Notify AMSA on halting (i.e., suspension) and on completion of the survey with vessel details (including name, callsign and Maritime MMSI), satellite communications details (including INMARSAT-C and satellite telephone), area of operation and halting and/or requested clearance from other vessels suspension of activities.	Email AMSA's JRCC at: rccaus@amsa.gov.au or phone 1800 627 484
Ballast water non-conformances and queries	DFAT

In addition to the above notifications, and for the avoidance of doubt, Pilot Energy will provide the following notifications to relevant persons:

- A pre-start notification to all relevant persons (including DEMIRS, etc.) at least 2 weeks before commencement of the survey, confirming the expected start date.
- A completion notification within 10 days after the survey concludes.
- Incident notifications: if any reportable environmental incident occurs, directly notify those relevant persons whose functions, interests or activities may be affected, including DEMIRS, DBCA, WAFIC and any fishing co-ops in the region, as soon as practicable.
- Traditional Owner groups to be notified at weekly intervals of any marine Fauna observations made by MFOs, in addition to a report at the end of operations detailing observations made, and any actions taken as a result.
- Tourists and divers: direct communication with local dive shops and Port Denison Volunteer Sea Search & Rescue will be used to identify and notify the public of planned survey operations. Local newspaper advertisements and signs posted at local boat ramps and beaches will also be used to notify the public of the planned survey operations.

10.9.2 Management of objections and claims

If any objections or claims are raised during ongoing consultation these will be substantiated via evidence such as publicly available credible information and/or scientific or fishing data. Where the objection or claim is substantiated, where applicable, it will be assessed as per the risk assessment process and controls applied where appropriate to manage

impacts and risks to ALARP and an acceptable level. Relevant persons will be provided with feedback as to whether their objection or claim was substantiated, and if not why, and if it was substantiated, how it was assessed and if any controls were put in place to manage the impact or risk to ALARP and an acceptable level.

If a change to the activity or controls adopted during the activity occurs as a result of relevant person consultation, including the provision of evidence regarding an impact or risk to commercial fishing due to the survey, the change will be managed in accordance with the Management of Change process (Section 10.2.1).